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DEPARTMENT OF IRRIGATION.

MONTHLY WEATHER REPORT
OF THE
METEOROLOGICAL OFFICE.

Vol. VI. **JANUARY, 1925.** **No. 61.**

MEAN pressure subnormal in the east, above normal in the west and south, and practically normal in the centre and north of the Cape Province; mean temperature about half a degree higher than usual, with days cooler and nights warmer than the average; excessive heat at the beginning of the month principally in the Cape Province, and during the middle of the month in the Transvaal, Free State, and Natal; a cold spell about the 15th to 17th, with some local frosts; good and fairly general rains at the beginning of the month, succeeded by a hot and dry spell broken only by local thunderstorms, with fairly general rains towards the close of the month over the Transvaal, Free State, and Natal; total precipitation mostly subnormal, but in excess of the average in portions of the north, east, south-west, and south-east of the Transvaal, parts of Natal, the south of the Free State, together with parts of the east, centre, and south-west of the Cape Province; rainfall generally insufficient for agriculture in the Cape Province, with absolute drought at a number of stations in the west coast and central and northern Karroo; a number of hailstorms, mostly light, but causing some damage in a few instances; some lightning fatalities to man and beast; a number of intense falls of rain, causing floods in parts of the Cape Province, Natal, and Free State; a few destructive windstorms; these were the principal features of the weather of January, 1925.

Pressure.—Mean atmospheric pressure during January was about 0·05 inch lower than usual over the Transvaal, Orange Free State, and the east of the Cape Province; slightly above normal in the west and south, and practically the same as usual in the centre and north of the Cape Province. The equatorial tongue of low pressure was strongly in evidence throughout the month, penetrating at times to the south and south-east coasts.

On the morning of the 1st, the interior was occupied by a tongue of low pressure, with a complementary "low" along the south coast when the pressure had fallen to 29·65 inches, whilst the rear of a high-pressure area lay over the east and the advance portion of another similar area along the west coast; by the morning of the 2nd, the coastal "low" had disappeared, pressure having risen by four-tenths of an inch, while the gradients had decreased considerably; on the 3rd, pressure had fallen slightly all over the Union, and the "low" over the interior had become somewhat deeper than on the previous day ; conditions remained practically the same on the 4th and 5th ; on the 6th, pressure had risen slightly along the south coast, but had fallen on the east coast, forming a "low" there, whilst the barometric readings were practically the same as on the preceding few days over the interior ; on the 7th, the barometer had fallen about half-a-tenth of an inch over the interior and in the west, was constant in the south, but had risen in the east and south-east, giving rise to gradients from south to north ; on the 8th, pressure had risen on the south and south-east coasts, being 30·10 inches along the former, but had fallen somewhat in the west and over the northern interior ; on the 9th, the "high" over the south had passed off, and there was a general fall over the country, with an extension of the equatorial "low" to the south-west of the Cape Province, the isobars being more compressed so as to show more of a north-to-south trend than on the few preceding days ; on the 10th, pressure had fallen still further in the east and south-east, but remained practically steady in the west, a complementary "low" making its appearance on the Natal coast ; on the 11th, the eastern "low" had passed off ; pressure had risen by about one-hundredth of an inch in the east, but had fallen slightly in the west, leaving the country under the influence of a "low" with but slight gradients ; on the 12th, pressure had risen slightly in the west, but had fallen about a tenth of an inch in the south and east and by one-twentieth of an inch over the northern interior ; by the 13th, a further fall had taken place over the interior, a slight rise in the east, but pressure had remained steady over the west, the interior "low" being consequently much better defined than on the preceding day ; on the 14th, a considerable increase of pressure was found to have taken place all over the Union, particularly in the west and south-west, where lay the front of an advancing "high," whilst the lowest isobar over the interior was practically the same as on the previous day, resulting in a considerable increase in the gradients ; on the 15th, a further increase had taken place generally, so that the Union was mostly under the influence of anticyclonic conditions, whilst over the interior the lowest isobar of the "low" was one-tenth of an inch higher ; on the 16th, a further small increase of pressure had taken place over the interior, but a decrease of about a tenth of an inch over practically the whole of the country, resulting in a decrease in the gradients ; on the 17th, the high-pressure area that had lain over the westerly and more southerly parts of the Union the previous day had pushed slightly more to the northward, causing an increase of about 0·05 inch over Southern Rhodesia and about a tenth of an inch along the south coast, the isobars lying practically east and west ; on the 18th, a protrusion southwards of the equatorial low pressure caused a considerable fall of pressure (about 0·15 inch) in the south-west, south, and over the western interior, whilst an increase in the value of the isobars had taken place in the east, where the rear of a "high" rested over the greater part of the Transvaal, Free State, and Natal ; an increase had also taken place over Rhodesia ; on the 19th, the high pressure in the east had decreased, but remained practically constant in the west, with a slight rise in the interior ; otherwise conditions continued the same as on the preceding day ; on the 20th, there was a slight rise in the west, but a further fall of 0·05 to 0·10 inch in the south and east of the Union, as well as over Southern Rhodesia ; on the 21st, a further general small fall took place, but otherwise the distribution of pressure was practically unchanged ; on the 22nd, conditions were the same as on the previous day, except for a small rise in the west and south and a slight decrease in the east ; on the 23rd, pressure was lowest on the coast of Portuguese East Africa and in Southern Rhodesia, and highest in the west and south-west ; the barometer had fallen slightly over the northern interior and on the East African coast ; on the 24th, pressure had risen to a slight extent over the whole country, the largest rises occurring in Portuguese East Africa and along the south coast ; whilst the barometer remained practically steady in the west ; on the 25th, the highest pressure had moved off the south coast north-eastwards to Natal and Zululand, causing a considerable increase there, whilst a decrease had taken place over the west and south in consequence of a protrusion southwards of the equatorial tongue of low pressure ; by the next morning (26th) a fall of three-tenths to four-tenths of an inch had taken place in the south, and a smaller fall of about half these amounts in the east and north-east ; and inverted " V " depression lay along the south coast, having the lowest isobar (29·60 inches) in the neighbourhood of Port Elizabeth ; by the morning of the 27th, the coastal " low " had passed off and an isobar of 30·00 inches lay along the west, south, and south-east coasts ; an increase of pressure had taken place over the greater part of the Union, except in the north-east, where a fall of about one-tenth of an inch occurred, as well as a smaller decrease over South-West Africa, Bechuanaland, and Southern Rhodesia, leaving the interior " low " still in possession of the greater part of the country ; on the 28th, it was seen that pressure had risen slightly in the east and west, producing a compression of the isobars of the " low " over the interior, while the 30-inch isobar that lay along the south coast on the previous day was replaced by the lower isobars of an inverted " V " depression, having the minimum pressure of 29·85 inches in the neighbourhood of Port Elizabeth and Great Fish Point ; a slight rise had taken place over Madagascar ; on the 29th, the coastal " low " had disappeared and a rise of about two-tenths of an inch had occurred in the south, whilst a small fall had taken place over the more northerly parts from which data are received ; pressure in Madagascar was steady ; on the 30th, pressure was slightly higher in the east and south-east of the Union, but had fallen somewhat in Madagascar, Portuguese East Africa, and the interior ; a fall of about two-tenths of an inch had also taken place in the south-west of the Union, consequent on a protrusion southward of the interior " low " ; by the 31st, a further practically general fall had taken place, particularly over the Natal coast, where it amounted to about three-tenths of an inch, resulting in the whole area covered by the map being under the influence of an interior " low " with a complementary inverted " V " depression, having its lowest isobar on the Natal coast ; a small rise of about one-tenth of an inch had taken place in the south-west of the Union.

Temperature.—The mean temperature during January was 70·8 degrees, or 0·6 degree lower than usual. This deficiency in the mean was due to the days with a temperature of 81·6 degrees being 1·3 degree cooler, whereas the nights with 60·0 degrees were 0·2 degree warmer than usual. A deficiency in mean temperature occurred in the Transvaal, Free State, and Natal, whereas the temperature of the month was practically normal in the Cape Province. The largest deficit in mean temperature was 2·6 degrees over Natal, where the mean for January, 1925, was 72·9 degrees, as against an average of 75·5 degrees. Over the Transvaal, the shortage was considerably less, the mean being 70·2 degrees, as against an average of 71·0 degrees. In the Orange Free State, the mean was only 0·4 degree less than usual, this month's temperature being 69·6 degrees, as compared with the normal of 70·0 degrees. In the Cape Province, the normal of 70·8 degrees was exceeded this month by a tenth of a degree. The mean day temperatures were lower than usual over all the Provinces, whilst the mean night temperatures were about the average. The mean maximum temperature over the Transvaal (80·7 degrees) was 1·6 degree less than usual, while the mean minimum of 59·6 degrees was only 0·1 degree lower than the normal. In the Free State, the mean day temperature (81·8 degrees) was 0·7 degree below the average value, whereas the mean night temperature (57·2 degrees) was only 0·2 degree cooler than the normal. Over

Natal, there was a deficit of 5·2 degrees in the day temperatures, the mean maximum being 82·1 degrees, as against an average of 87·3 degrees, but the night temperature of 63·7 degrees was the same as the normal. In the Cape Province, the mean day temperature (81·6 degrees) was 1·3 degree less than usual, whereas the mean night temperature of 59·7 degrees was 0·4 degree higher than the corresponding average value. Considering the individual stations, it is seen that the mean temperature for January was below the average over the greater part of the Transvaal, the east, centre, and south of the Free State, in Basutoland, the whole of Natal, the east of Kaffraria, portion of the south-east, the south coast, the east-central Karroo, the cost of Namaqualand, and Bechuanaland. In the Transvaal, the deficits were mostly between 1 degree and 2 degrees, but varied from 0·1 degree at Johannesburg to 2·6 degrees at Louis Trichardt; in parts of the south-west and south-east, however, temperature was slightly higher than usual, varying from *plus* 0·1 degree at Piet Retief to 1·7 degree at Bloemhof. In the Orange Free State, the shortages lay between 0·2 degree at Bloemfontein and 2·1 degrees at Harrismith. On the other hand, Kroonstad and Lindley show excesses of 0·4 degree and 1·3 degree respectively. In Natal, the deficits in the west lay generally between 3 and 4 degrees, decreasing to between 2 and 3 degrees near the coast and to half a degree at Durban. The extreme departures were 0·5 degree at Durban and 4·2 degrees at Weenen. In Basutoland, Mafeteng showed a mean temperature 2·9 degrees lower than usual. In the Cape Province, the shortages were mostly in the neighbourhood of 1 degree or less, but ranged from 0·2 degree at Sydney's Hope to 2·3 degrees at Grahamstown in the south-east. Small excesses in mean temperature prevailed over the greater part of this Province, but ranged from 0·1 degree at Clanwilliam to 2·4 degrees at Groot Drakenstein in the south-west. In the Transvaal, the day temperatures were almost everywhere lower than usual, the deficits being generally between 1 degree and 3 degrees, but ranging from 0·4 degree at Zeerust to 4·4 degrees at Pretoria. At a few stations, however, in the east, south, centre, and south-west the mean maxima were slightly in excess of the average, by 0·3 degree at Johannesburg and 1·1 degree at Bloemhof. The mean night temperatures below the usual values at slightly more than half the stations, the shortages being mostly between 1 degree and 2 degrees; the largest deficit was 2·6 degrees at Louis Trichardt, and the smallest 0·4 degree at Johannesburg. These deficits were fairly general in the north and east, but excesses were somewhat more common over the centre and west. The surplus amounts varied from 0·3 degree at Nylstroom to 2·7 degrees at Potchefstroom. In Swaziland, both day and night temperatures were slightly in excess of normal at Mbabane. In the Orange Free State, subnormal mean maxima were experienced in the north-east, east, and south, and super-normal values in the north and centre. The deficits varied from 0·6 degree at Bethulie to 4·0 degrees at Harrismith, and the excesses between 0·4 degree at Lindley and 1·1 degree at Kroonstad. The mean minima were mostly lower than usual, by amounts lying between 0·1 degree at Harrismith and 1·7 degree at Bethulie; Ladybrand and Lindley, however, showed surplus values of 0·3 degree and 2·1 degrees respectively. In Natal, the days were considerably cooler than usual, the departures lying between *minus* 3·2 degrees at Durban and 8·5 degrees at Ladysmith. The night temperatures were also below the average, particularly in the north, but were above normal in the south and the extreme west. The deficits ranged from 0·3 degree at Weenen to 3·4 degrees at Dundee, and the surplus amounts from 0·3 degree at Maritzburg to 2·3 degrees at Durban. The mean day temperatures were mostly above the average in the eastern portions of the Cape Province, also in the south-west, on the Namaqualand plateau, and the west of the northern border. The excesses varied from 0·1 degree at Port Elizabeth to 3·2 degrees at Aliwal North.

Subnormal day temperatures, on the other hand, occurred in Bechuanaland, the eastern portion of the northern border, the south of the northern Karroo, the coast of Namaqualand, parts of the west, south, and east coasts, also at a few stations in the east-central Karroo, and of the south-east. These deficits varied from 0·3 degree at Carnarvon to 6·0 degrees at Mafeking. The night temperatures were above normal over the interior, except in the east, where they were mostly lower than usual, as well as at most of the coast stations. The *plus* amounts lay between 0·1 degree at Vryburg and 3·1 degrees at Port St. Johns; and the *minus* quantities between 0·1 degree at Port Nolloth and 2·4 degrees at Grahamstown. Both days and nights were warmer than the average at a few stations on the innermost plateau, the south-west, and one or two places on the east; whilst the reverse obtained at several coast stations and at a few in the east of the Cape Province. The mean warmest station over the Union during January, 1925, was Kenhardt, with a temperature for this month of 80·6 degrees, and the coolest, Port Nolloth, with 59·0 degrees, a difference of 21·6 degrees, both stations being situated in the Cape Province. In the Transvaal there was a difference of 18·0 degrees between the mean warmest station, Komatipoort (79·3 degrees), and the coolest, Belfast, with a temperature of 61·3 degrees. In the Free State, the difference was slightly more than half that in the Transvaal, being 9·7 degrees between this month's temperature of 72·4 degrees at Kroonstad and 62·7 degrees at Harrismith. The difference was least (7·5 degrees) in Natal, Durban showing the highest monthly temperature (76·1 degrees), and Dundee the least (68·6 degrees). The mean maxima for January varied between 64·8 degrees at Port Nolloth and 96·0 degrees at Kenhardt, both in the Cape Province; whilst the minima ranged from 70·5 degrees at Durban (Natal) to 50·4 degrees at Belfast (Transvaal). The warmest periods during January were 1st to 2nd, 9th to 13th, 18th, 20th to 22nd, and 26th to 31st, more particularly on the 1st, 12th, 22nd, 27th, and 29th. Temperatures of 100 degrees or over were common to three of the Provinces, the Orange Free State being the exception. Such temperatures occurred on the 1st at many stations in the west, the central and southern Karroos, the south-east, and Kaffraria. The highest temperature recorded amongst the stations on the accompanying list was 109·0 degrees at Clanwilliam; an equal temperature was noted at Jansenville, but this was exceeded at Lake Mentz, where 114·0 degrees were registered; the highest reading reported on this date, however, was 121·9 degrees at Dunbrody, in the south coast division. The coolest period during this month was from the 13th to the 20th, although a few minima were registered also on the 10th and 25th. The lowest temperatures over the Free State, Natal, and the Cape Province were registered mostly on the 14th and 15th, most widely on the latter date; and over the Transvaal on the 18th and 19th, particularly on the latter day. The extreme minimum for the month was 33·0 degrees at Belfast (Transvaal) on the 19th. There was therefore an extreme range of 88·9 degrees over the Union during January. The extremes over the different Provinces were as follows:—Transvaal: highest, 100·0 degrees at Rustenburg on the 13th; lowest, 33·0 degrees at Belfast on the 19th; range, 67·0 degrees. Orange Free State: highest, 93·0 degrees at Bethulie on the 12th; lowest, 41·0 degrees at Harrismith on the 16th; range, 52·0 degrees. Natal: highest, 101·0 degrees at Empangeni on the 31st; lowest, 48·0 degrees at Dundee on the 16th, 17th, and 19th; range, 53·0 degrees. Cape Province: highest, 121·9 degrees at Dunbrody on the 1st; lowest, 40·0 degrees at Kokstad on the 15th; range, 81·9 degrees. Frost was recorded as occurring at Stutterheim (Cape Province) on the 15th, when the potato and bean crops were injured and young fruit killed at Middelburg (Cape Province). At Swartlaagte, in the Division of Ficksburg (Orange Free State), tender leaves were scorched by the cold on the same date.

Precipitation.—The rainfall during January was mostly below the average in all the Provinces. The deficits in the Transvaal were generally between 1 inch and 3 inches, varying from 0·5 inch at Pilgrims Rest to 2·99 inches at Zeerust. Excesses, however, occurred in parts of the north and east, as well as at a few stations in the south-east and south-west. The *plus* amounts varied from 0·1 inch at Claremont in the north-west to 2·20 inches at Pigeonhole in the north-east. In the Free State, the month's precipitation was also subnormal, except over a narrow tongue extending from the northern border to about the centre of the Province, as well as in small patches in the south-east bordering Basutoland and in the extreme south on the border of the Cape Province. The shortages here were mostly between 1 inch and 2 inches. In Natal, the rainfall was less than usual, except over a fairly continuous irregular area extending southwards from the centre to the borders of Kaffraria and eastwards to the coast, where the northern limit of this *plus* area was a short distance north of Stanger. In the Cape Province, a surplus rainfall was confined to a few comparatively small areas; a narrow band extending along the Kaffrarian coast and stretching inland to the neighbourhood of Queenstown; a small patch along the south-east coast between Port Elizabeth and East London; a small area in the neighbourhood of Piquetberg in the south-west; the greater part of Caledon and Bredasdorp Divisions; and the north, west, and south of Bechuanaland. In practically all other parts of the Cape Province there was a deficiency of rainfall during January. The percentage deficits increased from west to east, amounting to absolute drought over the western and southern parts of the interior plateau, as well as portions of the west, of the central and southern Karroos. Small quantities were recorded along the west coastal areas. The quantities registered were mostly between 3 and 7 inches in the Transvaal, Free State, Natal, and the east of the Cape Province, but exceeded 7 inches in detached areas in the Transkei, Natal, the east and north of the Transvaal, and even exceeding 20 inches at one or two stations in the Zoutpansberg and Pietersburg Divisions of the Transvaal. Over the remainder of the Cape Province the totals were generally less than 3 inches, except in a small portion of the northern border, where it rose to between 4½ and 7 inches, and a small patch in the south coastal area, where totals of about 4 inches were registered. Small quantities of half an inch or less fell along the west coast area, while along the south coast the totals were mostly between 1 inch and 3 inches. In the Transvaal, rain was of most frequent occurrence in the Zoutpansberg and Witwatersrand Divisions, and least frequent in the Bethal, Middelburg, and Carolina Divisions. Precipitation was practically general during the first week and the last three or four days of the month, the dry spell in the middle of the month being broken by more or less local showers, mainly about the 13th to 15th. Showers were much more frequent over the Free State than in the Transvaal, occurring almost every second day over parts of most of the divisions, and on two days out of three in Harrismith, Bloemfontein, Heilbron, Fauresmith, and Thaba 'Nchu. Unfortunately, these rains were mostly local, resulting in a very patchy distribution. They were most frequent in the north-east, in the Harrismith District; and least frequent in the Edenburg Division in the south. In Natal, good rains fell at the beginning and end of the month, with some local heavy falls particularly in the first and last weeks. In the Cape Province, rain fell at frequent intervals in the east, being generally heavy over Kaffraria on the 4th and over the south-east on the 13th. Light showers occurred in the west and south-west, mostly on the 11th to 13th and on the 26th. Frequent moderate rains fell along the south coast throughout the month and light scattered thunderstorms over the rest of the Province, mainly on the 9th, 13th, 20th, and 30th. During the month there was a noteworthy absence, particularly in the Transvaal, of the usual severe *thunderstorms*, the electrical phenomena being apparently associated with storms of the cyclonic rather than the convectional type. A number of fatalities resulted from lightning, however. Thus on the farm Uitzicht, in the District of Vrede, during a severe thunderstorm with hail (date not given), two natives, two head of cattle, and one horse were killed by lightning. At Ladysmith (Natal), 4·28 inches of rain fell during a severe storm, lasting about five hours, on the night of the 29th ; six natives were killed by lightning in the vicinity of Pieters Station. The rush of water caused considerable damage to roads and bridge approaches. A considerable area was affected by heavy rains on this occasion, being noted at Elandslaagte and other outlying parts. Some severe thunderstorms were also experienced in the east of the Cape Province. *Hail* was also comparatively rare in the Transvaal during January, and was most numerously reported from the Orange Free State, with a few in Natal and the east of the Cape Province. The hail accompanying the severe thunderstorm at Uitzicht (District Vrede) was reported to have been about the size of small fowl eggs. At Streepfontein (Division Albert), in the Cape Province, a total fall of 3·06 inches was recorded ; during this storm there fell hail the size of hens' eggs. At Mount Coke (Kingwilliamstown), on the 21st, between noon and 12.30 p.m., hail fell varying in size from that of a small pea to a diameter of half a crown, causing considerable damage to stock and crops, and stripping trees of leaves, bark, and fruit ; roofs and portions of houses were blown away. The area affected seems to have been from Mount Coke Mission, along the M'kungiso stream, across the Buffalo River at the bridge, thence up the Yellowwoods River towards Blaney. Much damage was done by hail on the 2nd at Nooitgedacht (District Lindley), and slight damage at Magdalena in the same district on the 15th. Considerable damage was caused to crops at Buckland Downs (District Harrismith) ; also on the 13th at Mnexsha (Kingwilliamstown). At New Highland (Division Barkly East) hail lay thick for a considerable time after a storm lasting from 3 p.m. to 3.20 p.m. From Ovendale (Division of Willowmore) it was reported that a " cyclone " passed over Willowmore, destroying seventeen houses, accompanied by hailstones the size of pigeons' eggs. At Mafeteng (Basutoland) crops were damaged by some severe hailstorms. With these exceptions, the hail reported was generally light, causing little or no damage. This meteor was noted on the 1st, 2nd, 3rd, 6th, 7th, 8th, 9th, 11th, 13th, 15th, 18th, and 21st. Snow was reported on the Drakensberg about the middle of the month. During the month daily totals of 2--5 inches were of fairly frequent occurrence, more particularly in the Free State and Natal, and local falls of considerable intensity during short periods occurred at a number of stations, causing floods in rivers, etc. These heavy falls occurred mainly on the 1st, 3rd to 5th, and between the 29th and 31st. Among the larger totals may be mentioned : 3·30 inches at Mfongosi on the 31st ; 3·63 inches in three hours at Rumpus Ridge (Alexandra) on the 4th ; 4·70 inches at Nkandhla on the 5th ; 5·50 inches in ten and three-quarter hours at Matawaanskloof (Klip River) on the 29th ; 7·25 inches on the same date at Matewane (Klip River) ; all in Natal. To these may be added, a fall of 3·45 inches in six and three-quarter hours at Wolfenden (Klip River) on the 29th, when the Modder Spruit rose 30 feet, overflowed its banks, completely covering the road and washing away the approach on the south-east side. The fall of 4·28 inches on the 29th at Ladysmith has been already noted. At Fraaiuitzig (District Kroonstad), 3·77 inches fell in seven hours on the 27th, and 4½ inches at Klompiesdoorn (District Kroonstad) in five hours on the 28th, both in the Free State. In the Pretoria District of the Transvaal, a so-called " cloud-burst " at Garstfontein on the 27th, caused the river at Lynwood to rise 15 feet, doing a great deal of damage to lands, crops, and fences, whilst crops alongside were dying of drought. At

Riversdale (Division Cathcart) a fall of 2·53 inches in one and a half hour on the 20th did a lot of damage to fences and lands; similarly, a precipitation of 5·20 inches in seven and a half hours on the 30th at Middlewater (Division Colesberg) caused a deal of damage to lands, fences, dams, etc., and on the same date much damage was done by a flood at Rietfontein (Colesberg Division), where only 1·57 inch fell in five hours. In the South-West Protectorate, the actual quantities varied from "nil" in the extreme south and south-west to 7·51 inches at Tsumeb in the north-east, the isohyets running in a general north-west to south-east direction. The areas having excess and deficient rainfall, compared with the normal, were very irregularly distributed, showing, however, a tendency to an alternation of *plus* and *minus* quantities. Thus the extreme north and south-east were mostly in excess of the average, whilst the generally subnormal area between was broken up by small detached patches of surplus rainfall, e.g. the neighbourhood of Okahandja, Duesternbrook, and Usakos; Haribes and Voigtsgrund; Garinais and Bethany. The actual shortages varied between 0·01 inch (or 100 per cent.) at Luderitz Bay to 3·64 inches (or 54 per cent.) at Omaruru; and the surplus amounts from 0·01 inch (or 5 per cent.) at Kalkfontein to 1·93 inch (or 35 per cent.) at Tsumeb. The accumulated rainfall since the 1st July of the preceding year was in excess of normal in the north, east, south-east, south-west, and part of the south-central portions of the Transvaal, in Swaziland, the Free State, Natal; the east of Kaffraria, Bechuanaland, the northern border, and a few stations in the west of the south coastal area and the south-west of the Cape Province. In the Protectorate, precipitation during these seven months was mostly subnormal, but the continuity was broken by a number of small areas of excess, distributed in much the same manner as during the month of January, but more restricted in extent. In the Transvaal, the excesses varied from 9·79 inches or 66 per cent. at Komatipoort to 0·71 inch or 4 per cent. at Pretoria; and the deficits from 3·39 inches or 15 per cent. at Ermelo to 0·13 inch or 1 per cent. at Nylstroom. In Swaziland, Mbabane showed a surplus of 12·42 inches, or 37 per cent. of normal In the Free State, the excess amounts varied between 7·10 inches or 42 per cent. at Ladybrand and 0·92 inch or 5 per cent. at Harrismith; and in Natal, from 13·06 inches or 78 per cent. at Ladysmith to 0·41 inch or 2 per cent. at Vryheid. Durban, however, had a small deficit of 0·31 inch, or 1 per cent. In the Cape Province, the *plus* quantities lay between 6·86 inches or 42 per cent. at Kokstad and 0·09 inch or 2 per cent. at Philipstown; whilst the *minus* amounts, which affected the greater part of the Province, were from 6·80 inches or 42 per cent. at Grahamstown to 0·04 inch or less than 1 per cent. at Queenstown. In the South-West Protectorate, the excesses of the totals for the seven months varied between 4·24 inches or 34 per cent. at Tsumeb and 0·03 inch or 1 per cent. at Haribes; and the deficits from 4·38 inches or 38 per cent. at Omaruru to 0·08 inch or 1 per cent. at Groot Witvley.

State of Country.—Transvaal: The highly localized character of the rainfall during January resulted in a strip-like distribution. The quantities were least (1 inch to 2 inches) in the east of the Pretoria District, the west of Middelburg, and the south of Waterberg. From this area the total precipitation first increased to between 4½ and 7 inches in all directions, and even to more than 10 inches in parts of the east and north-east, but fell off again to between 2 and 3 inches or even less towards the western, south-western, and northern borders. Although rain was fairly general in the early part of the month, this was succeeded by a warm spell of two to three weeks' duration, when the incidence of any precipitation that did occur was most erratic. As a result of these conditions, some areas were favoured with a sufficient or even an abundant rainfall, whilst other and frequently adjacent localities suffered from severe drought. These conditions serve to explain the diverse nature of the reports as to the state of the crops at the end of the month. Thus in the greater part of the Pietersburg, Zoutpansberg, Waterberg, and Rustenburg Divisions, good rains had fallen, with frequent cloudy days, giving reason for anticipating good crops, but more sunshine was required, especially for cotton and tobacco ; whereas in the eastern part of the high veld, i.e. in Carolina, Ermelo, Standerton, Bethal, and Middelburg, as well as in the Pretoria, Lichtenburg, and Bloemhof Districts, more rain was required, as crops were wilting in some instances, more particularly in the more open soils. The absence of rain was all the more severely felt in consequence of the good rains of the earlier months having induced the growth of surface roots at the expense of more deeply-seated roots. On the whole, however, crops were in good condition, and promised good returns provided good rains fell at an early date. Stock generally were in good condition in consequence of abundant pasturage, which appeared to be generally less affected by the dry spell than were the crops. Horse-sickness was unusually prevalent in part of the Waterberg District and to a less extent in several other divisions, e.g. Bloemhof, Ermelo, Wakkerstroom, but few deaths had occurred. Insect pests were attacking the fruit at Mosdene (Naboomspruit) ; caterpillars were infesting the cotton plants at Mooigelegen, in the Zoutpansberg ; whilst the stalk-borer was causing damage to the maize in Pretoria District.

Orange Free State.—Although fairly good rains fell at the beginning of the month, these were succeeded by a hot spell of about three weeks' duration, which gave a serious set-back to crops and dried up the veld grass in places, particularly in the north-west, west, and south-west, where the total rainfall for the month was between half an inch and 2 inches. The situation was relieved to a great extent mainly in the north, north-east, and centre by the rains that fell during the last week, so that at the end of the month crops had improved considerably and gave promise of good returns. In portions of the east and north (e.g. parts of the Vrede, Ficksburg, and Ladybrand Districts), however, growth was retarded to some extent, owing to the soil being waterlogged as the result of the heavy rains of the previous month. Maize and other crops in the west were badly in need of rain, except where irrigation was possible. Good rye and wheat crops had been reaped in the Ladybrand District, but in the Ficksburg Division the results from the corn harvest were poor owing to rust. In portions of the Bloemfontein Division, C.M.R. beetles were causing a lot of damage to fruit and mealies. During the dry spell, grub was active in maize, but had been checked by the subsequent rains. Top-grub had also appeared in the maize in the Ficksburg Division ; whilst in Winburg the early-planted mealies had flowered, but were very bad. Some damage was caused during the month by hail to fruit, oats, mealies, etc., in the Harrismith and Lindley Districts. Stock and veld (with few exceptions) were generally looking well at the end of the month.

Natal.—Crops generally were promising well as the result of good rains during the first fortnight, followed by a comparatively dry, hot period, during which maize, etc., was beginning to wilt. Serious damage, however, was prevented by the occurrence of fairly heavy rains on the last few days of the month. Bag-worm in wattles was bad in some places. Stock were healthy, except for some horse-sickness.

Cape Province.—Droughty conditions prevailed over the greater part of the Cape Province. Even over some of the more easterly portions of the country, where the month's rainfall aggregated 2–4 inches, the showers were too light and small in amount to benefit crops and veld, the moisture so deposited being usually dried up in the course of a few days by the excessive heat and the persistent wind. The fluctuations in temperature were considerable, ranging from considerably over 100° F. at many stations to killing frosts at others.

More favourable reports, however, emanate from the more easterly parts of the Province, particularly those divisions bordering Basutoland and the south and south-west of the Free State, Barkly West, portions of Kenhardt, Kuruman, and a few divisions in the east of the northern Karroo. Even in these cases the rainfall was patchy and far from uniformly distributed. Whilst dry veld and a prospective failure of mealie crops constituted the tenour of the majority of reports received, complaint was made from Maclear of too much moisture, fruit suffering from lack of sunshine; whilst at Sandflats (District Mount Currie) the maize was being adversely affected by too much rain, as well as being attacked by top-grub. At this latter station some teff had been stacked, an unusually late wheat crop was being harvested, and veld grass was seeding properly for the first time for years. In Barkly West the veld grass was also in seed, and cattle had recovered condition. In the Albert Division a good wheat crop was anticipated, although most of the mealie crops were likely to prove a failure. On the other hand, record mealie crops were expected at Mount Fletcher and Wolvekloof (Division Steynsburg), and a similar return of wheat, oats, and rye. In Hanover District the wheat crop was fair and fruit plentiful, but attacked by insect pests. The onion crop at Ventersfontein (Division Colesberg) was very promising. Fruit and vegetables were scarce and expensive at Somerset East, but were plentiful at Kimberley, as were also milk, butter, and cheese. Fruit was backward at Bedford, and a small crop was expected at Port Alfred. In the Riversdale District fruit was fair; in Hanover plentiful, but attacked by insect pests; while at Upington both fruit and lucerne were in splendid condition. In parts of the Kuruman and Kenhardt Districts the drought had been relieved to some extent, and provided further showers fell some mealie crops were anticipated from dry lands, as was also the case at Port Alfred. In most of the south coastal divisions more rain was required, especially in the Karroo portions, which were extremely dry. Stock generally were in fair to good condition, but were falling off in Tsolo, and many had died owing to drought in the Uitenhage Division, while others had to be suspended in hammocks and hand-fed. In De Aar sheep in netted camps were in good condition, but herded sheep were poor. In Mount Currie the younger sheep were improving with the drier weather. Frost, hail, and heavy rains caused some damage to crops, lands, etc., in the eastern division.

Bechuanaland.—In Bechuanaland the rainfall was irregularly distributed, being heavier in some parts than in others, but generally the veld was in excellent condition.

Basutoland.—Severe thunderstorms and heavy hail caused some damage to crops.

State of Water-Supply, Rivers, etc.—Water for stock and domestic purposes was sufficient in all except the *Cape Province.* At Somerset East municipal restrictions as to the use of water continue in force. In the Bedford District the necessary water for stock had become a serious problem. In the Stutterheim District dams were drying up, and at Doorn River (Division Calvinia) the dam was dry for the first time in eighteen years. At Riversdale the water-supply for the village continued good, although the country was very dry. The 3·04 inches that fell at Port Alfred materially benefited the water-supply there. In the *Transvaal*, the absence of the usual severe thunderstorms and of long continued rains was responsible for the non-occurrence of floods in the rivers. The only flood noted in this Province during January was that at Lynwood, in the Pretoria District, where the river rose 15 feet as the result of a "cloud-burst" on the adjoining farm Garstfontein; considerable damage was done to lands, crops, and fences. *Orange Free State:* As the result of heavy rains to the east of Kroonstad, totalling 4–6 inches between the 26th and the end of the month, the Valsch River rose 4 feet above level and continued running during the week. At Pakpoort (District Bloemfontein) the Riet River came down on the 1st, owing to a heavy storm in the neighbourhood. At Lapdoorn (District Hoopstad) the Vaal was reported as having risen 2 feet. *Natal:* At Ladysmith a very heavy thunderstorm, lasting about five hours, on the night of the 29th caused considerable damage to roads, bridge approaches, etc. At Wolfenden (Klip River), where a fall of 3·45 inches occurred also on the 29th, the Modder Spruit rose 30 feet, overflowing its banks, completely covering the road bridge and washing away the approach on the south-east side. *Cape Province:* At Uitenhage the Zwartkop River was very low. The Kei River came down once over its banks at Riversdale (Cathcart Division) a few times as the result of rains which fell higher up the river. A great deal of damage was done by a flood at Rietfontein (Division Colesburg) in the Van der Walt's River catchment on the 30th, when 1·57 inch fell in five hours. At Middlewater, in the same division, on the same date, a lot of damage was caused to lands, fences, dams, etc., as the result of a fall of 5·20 inches in seven and a half hours. In Bechuanaland, the Metla and Mahalapye Rivers were still practically dry. Considered as a whole, steady soaking rains of several days' duration were required over the Cape Province to restore the country to its natural condition and renew the wells, as well as more intense showers to fill the dams.

OBSERVERS' NOTES FOR JANUARY, 1925.

TRANSVAAL.

Rustenburg.—Steady rains fell during the month. Crops in splendid condition, but wildfire in tobacco crop in places, and bright sunshine now needed to check it spreading. Cattle in good condition and grazing plentiful everywhere. No locusts during month. Rainfall: 2·84 inches on thirteen days.—A. Streatfield.

Pietersburg.—Soft rains spread well over month. Crops in first-class condition. Rainfall: 4·96 inches on fifteen days.—W. J. Frankleyne.

Belfast.—The principal rains fell between the 3rd and 14th, and towards the end of the month it was very dry. Grass burning very readily, and rain is very badly needed especially in this vicinity. Cattle and sheep are still in good condition. Rainfall: 4·45 inches on eleven days.—The Forester.

Barberton.—Warm weather has prevailed throughout the month, and there has been a notable absence of the usual thunderstorms. The crops are looking well. Rainfall: 5·11 inches on nine days.—Walter Grubb.

Bloemhof.—We had a fair rainfall this month. Stock are in good condition. A fair amount of crops will be reaped this year. Horse-sickness not so prevalent as previous years. Hardly any locusts to be seen. Rainfall: 1·75 inches on seven days.—C. J. van Tonder.

Ermelo.—On several days during the month extremes in temperature occurred, but on the whole the weather has been genial. Crops are in splendid order and stock in first-rate condition. Horse-sickness has occurred in the low veld portions of the district, but so far not many deaths have been noted. Rainfall: 3·81 inches on six days.—J. Dean.

Potchefstroom (Experimental Farm).—Month characterized by high temperatures. Rain mostly in scattered showers. Beginning and end of month moist, with warm, dry spell in between. Rainfall: 4·31 inches on twelve days.—D. Moses.

Groeneboom No. 444 (*Rustenburg*).—There were many sultry, close days this month, and many cloudy days with a fair amount of precipitation well distributed throughout the month. Crops growing splendidly. Early-planted mealies flowering. Cotton cultivation was somewhat hampered by the rain and insects doing some damage. Cattle in very good condition owing to splendid veld. Outlook very bright for all branches of farming. During the last days of the month some big swarms of locusts passed this station, flying south. No damage done so far. They are reported to be heavily infested with worms, and are accompanied by hundreds of locusts and other birds. Rainfall: 5·48 inches on thirteen days.—F. N. van Nouhuys.

Bralbin (*Rustenburg*).—Weather for this month has been cooler than normal. Rainfall has been excellent. Lightning storms local and never severe. Crops all round show good growth. The cotton in this area is giving every sign for a bumper crop. Rainfall: 5·07 inches on thirteen days.—R. C. S. McPherson.

Bethal.—Drought is becoming very severe in some parts of this district, and farmers are getting anxious about the mealie crop, which might be very far from expectations unless we have a good rain soon. Rainfall: 2·57 inches on six days.—H. F. M. Joubert.

Kopje Alleen–Springbok Flats (*Waterberg*).—The rainfall (2·36 inches on eleven days) is the lowest in January for seven years. The mean for the month is 4·76 inches on twelve days. The season's fall is also deficient by 3·27 inches, though there have been nine rain-days more. The replanting of maize, which was necessary owing to lack of rain, was finished on the 12th. Opportune rains on the three following days caused good germination, but, as practically no further showers have fallen, rain is badly wanted to ensure anything like a decent harvest. Cotton and monkey nuts here and in the neighbourhood promise fairly well, but most of the natives' crops of maize and kaffir corn are poor.—J. Lyall Soutter.

Parktown North (*Johannesburg*).—Weather cool and cloudy most part of month. Early mornings cool. Rainfall: 4·72 inches on sixteen days.—G. S. Garnett.

West End Plantation (*Pretoria*).—Most of the heavy rains that fell in town did not reach here; in several cases I noticed there was nothing within a mile of the east of this station. On the evening of the 27th the lightning was very severe and the rain (2·36 inches) very heavy. Rainfall: 4·20 inches on ten days.—W. H. Foster.

Nooitgedacht (*Warmbaths*).—The latter half of the month very dry at this station, which missed two or three good rains in the close neighbourhood. Crops and cattle looking very well. The weather again much cooler than in January, 1924; maximum average is down 7 degrees. No locusts seen here. Seasonal rainfall to date, 16·73 inches, against 6·41 inches last year. Rainfall: 2·45 inches on twelve days.—G. Gordon Brown.

Berlin Plantation (*Barberton*).—The rainfall has been very satisfactory for our tree-planting. Rainfall: 6·65 inches on thirteen days.—E. Edwards.

Wakkerstroom.—With the exception of a couple somewhat cold days and nights about the middle of the month the weather has remained uniformly pleasant, the maximum temperature only once touching 80 degrees. Good fruit is unobtainable owing to the hailstorms in early part of the season. Vegetables and general vegetation excellent. Cases of horse-sickness reported. Sheep condition good; dip normal. Rainfall: 7·50 inches on eleven days.—J. Cilliers.

Gemboksfontein (*Middelburg*).—Rains fell very local. Rain badly wanted, and grazing is suffering on porous soil. Rainfall: 4·06 inches on eleven days.—L. C. Skead.

Krugersdorp.—The month of January has been cool and pleasant, the mean average temperature being 65·7 degrees, or fully 4 degrees under the average for the past fifteen years. Rainfall, 4·23 inches on 16 days, against an average of 5·94 inches during the past twenty-two years. Crops and veld are looking excellent.—H. Sharp.

Pigeonhole–New Agatha (*Zoutpansberg*).—Excellent growing weather. No damage done by rains. Rainfall: 11·27 inches on twenty-three days.—Jno. McCallum.

Lichtenburg.—Fair amount of rain. Crops in town and district are doing well. Rainfall: 3·69 inches on nine days.—H. J. Swart.

Rietvlei No. 102 (*Ermelo*).—First half of January exceedingly wet, and the latter half very dry, with constant east winds. The lands are beginning to suffer from want of rain. Rainfall: 7·17 inches on ten days.—P. J. Steenkamp.

Pretoria (*Transvaal University College Experimental Farm*.—During the last three weeks of the month the first droughty period was experienced since the planting of crops, and this will have a serious effect on early-planted maize which, unfortunately, tasselled during this period; however, all crops are suffering fairly severely. The suffering is probably aggravated by the excellent rains which we had up to the first week of the month, during which time the roots of plants had an abundant supply of moisture and therefore did not penetrate deep enough into the soil in search of water. S alk-borer is still doing damage, but not to the extent as was expected. The veld does not appear to be suffering as much from drought as are the crops, and is still looking fairly well. Stock are in good condition. No locusts have been seen. Rainfall: 1·73 inch on thirteen days.—The Manager.

Waterval Boven (*Government School*).—Rain is needed. It is getting dry. Rainfall: 2·41 inches on eight days.—The Principal.

Carolina.—Latter half of month was very dry, but not yet sufficient to affect the crops, and rain is expected daily. Very warm, close weather, with exceedingly cold snaps. Local showers fell in some parts of the district. Rainfall: 3·18 inches on seven days.—G. F. Mynhardt.

Rietfontein–Pomona Estates (*Pretoria*).—Storms very local in surrounding districts. No hail or violent storms. Crops doing extremely well. Rainfall: 3·90 inches on thirteen days.—E. A. Clark.

Mosdene (*Naboomspruit*).—Abundant rains fell during the first half of the month, and crops have made good growth and promise an abundant harvest. Only 0·18 inch fell during the last sixteen days, and more rain is now wanted. The fruit crop has suffered more severely than usual from insect pests, particularly from the fruit-sucking moth, which is spoiling most of the fruit. There has also been an unusual amount of horse-sickness in the neighbourhood. Total rainfall for month, 5·66 inches on ten days, against a January average of 5·34 inches for the previous seven years. Total rainfall since 1st July last: 18·60 inches.—Ernest E. Galpin.

Sevenfontein No. 165 (*Bloemhof*).—Rain has fallen in strips this year. Adjoining farm has not had a third of my rainfall. Rainfall: 3·99 inches on nine days.—I. Edwards.

Makouwskop (*Bloemhof*).—The drought has done a lot of damage to the crops. Rainfall: 1·15 inch on five days.—W. Hallatt.

Holpan (*Bloemhof*).—Crops suffered during hot, dry spell of four weeks. Rainfall: 4·44 inches on 4 days.—W. H. Hambly.

Morgenster No. 127 (*Ermelo*).—Crops fading, rain badly needed. Rainfall: 2·61 inches on six days.—M. E. Jooste.

Mohemsvlakte No. 374 (*Lichtenburg*).—It is very warm and dry, and the crops have made no progress. Rainfall: Nil.—S. S. L. J. van Rensburg.

Zandfontein.—Crops are in good condition, and maize should yield at least 50 per cent. more than last year; but for an absolute crop success more rain is required. Rainfall: 3·66 inches on ten days.—R. Boon.

Weltevreden (*Standerton*).—Several spells of drought were experienced, which caused crops to wilt. Rainfall: 2·68 inches on seven days.—D. Lane.

Woburn (*Waterberg*).—Crops very promising all over the Springbok Flats; no locusts so far. Rainfall: 3·89 inches on eight days.—C. W. Brumage.

Modderfontein (*Waterberg*).—Crops looking well, but require more rain to get a full yield. Rainfall: 5·71 inches on twelve days.—G. R. Johnston.

Mooigelegen (*Waterberg*).—Cotton infested with caterpillars, nuts require rain, and mealies are doing well. Rainfall: 3·24 inches on eight days.—A. V. Maddocks.

La Cotte (*Zoutpansberg*).—An exceptional season for all crops, but more sunshine is required, especially for cotton. Rainfall: 8·27 inches on ten days.—W. Andrews.

Doornkloof (*Zoutpansberg*).—Crops good. Cotton excellent, and there is little trouble from pests. Rainfall: 6·05 inches on eleven days.—S. M. Ralston.

Lynnwood (*Pretoria*).—27th, cloud burst at Garstfontein. River rose 15 feet, doing great damage to lands, crops, and fences. Crops alongside dying of drought. Only 0·09 inch on that date at this station. Rainfall: 2·13 inches on nine days.—F. E. B. Struben.

ORANGE FREE STATE.

Lindley.—At the beginning of the month crops and veld were looking well, but from about the 9th to 22nd they began to go back on account of the dry spell which occurred during that time. The rains came just in time, or things would have been serious if it had kept away any longer. Stock, crops, and veld are now looking well. Rainfall: 3·22 inches on fourteen days.—W. Murphy.

Kroonstad.—The past month, although rain fell on thirteen days, totalling 2·24 inches, was very warm, only one rain being of a beneficial nature. Crops were beginning to feel the heat and want of rain, but, with a few exceptions, the district is now assured of a bumper crop. From the 26th to the end of the month heavy rains were experienced east of town—4–6 inches. River rose to 4 feet above level and continued running during the week. Rainfall: 2·24 inches on thirteen days.—A. C. Mason.

Groenvlei (*Frankfort*).—The month started off well, but a very dry spell was experienced between the 7th and 26th. Both veld and crops became parched. Grub in the maize was very active during dry spells, but has been checked since the rain of the 27th. Crops are looking fine and promising. Total absence of any severe storms or hail during the month. Rainfall: 5·32 inches on nine days.—B. Stollreither.

Modderpoort (*Ladybrand*).—On the whole the month has been very hot, but the rain we received on the 29th (1·24 inch) has brightened things up a bit.

At the beginning of the month mealie crops were very backward owing to the heavy rains of last month, but they are now doing quite well. We have reaped excellent rye and wheat crops. Rainfall : 3·28 inches on ten days.—H. Wilson.

Belgrave No. 933 (*Bloemfontein*).—Weather has been very hot, and at times promising for rain. Westerly winds have always driven off the clouds. Mealies badly in need of rain. Potato growers are unable to get rid of their crops owing to market being over-stocked. C.M.R. beetles (Kerees) are bad this season, and doing a lot of damage to fruit and mealies. Rainfall : 0·75 inch on seven days.—W. W. Bird.

Pakpoort (*Bloemfontein*).—Edge of a big storm on 1st—0·25 inch. River came down. Rainfall ; 1·56 inch on six days.—L. S. Evans.

Slangfontein (*Fauresmith*).—Terrible heat ; flying locusts going south-east. Birds doing good work. Rainfall : 1·91 inch on eleven days.—A. B. du Toit.

Koppieskraal (*Fauresmith*).—Getting dry again ; weather promising ; crops doing well under irrigation. A few Blaauw tongue cases among sheep ; over now however. Veld looking lovely ; no horse-sickness. Rainfall : 1·87 inches on three days.—J. A. du Toit.

Swartlaagte (*Ficksburg*).—Crops backward on account of too much rain. Top-grub in maize. On 15th very cold ; tender leaves scorched. Rainfall : 3·46 inches on six days.—Corney A. Maritz.

Molapposdraai (*Ficksburg*).—Cattle in good condition ; corn harvest in full swing—results poor owing to rust ; mealies poor, too much rain. Rainfall : 4·03 inches on nine days.—J. P. Lekony.

Jacobserf (*Frankfort*).—Hot days between 6th and 24th of the month ; scorched crops and grass. Rainfall : 4·73 inches on nine days.—P. J. Coetzee.

Heilbron.—So far as can be ascertained crops in district are most promising. It was feared the dry spell between 8th and 24th of the month was going to cause disaster, but the rains came again and the situation has since improved enormously. Stock in fair condition. No sickness has been reported, and generally the outlook seems bright. Rainfall : 4·38 inches on fourteen days.—

Lapdoorn (*Hoopstad*).—Excessive heat, slight rains, grass, mealies, and pumpkins burnt up, especially lawns that are not watered. River rose and fell about 2 feet. Rainfall : 1·23 inch on four days.—S. Mason.

Waterpan (*Kroonstad*).—No disease, crops fair. Rainfall : 2·62 inches on seven days.—Herbert R. King.

Magdalena (*Lindley*).—Weather conditions most favourable, crops improved considerably. Rainfall : 2·74 inches on six days.—C. E. Nel.

Bonafide (*Thaba 'Nchu*).—The rainfall for the month approximately good, but the heat has been so intense that crops are suffering a great deal. General rains recorded and not local rains, such as we have had. Rainfall : 3·32 inches on nine days.—R. Morgan.

Woudzicht (*Vrede*).—Very favourable for all crops ; was very dry during last week, but rain saved the situation in time on 27th. Rainfall : 4·99 inches on fourteen days.—J. N. Kohln.

Gertie's Grove (*Vrede*).—Crops fairly good, could have been better if ground was not so waterlogged. Grazing the best we had for years. Severe hailstorm on farm Uitzicht, accompanied by lightning and thunder, killing two natives, two head of cattle, and one horse. Hail about the size of small fowl eggs on 27th. Rainfall : 3·09 inches on eight days.—J. N. Boers.

Grootdam (*Wepener*).—We feel thankful for the rains of the last three days of the month. The crops promise a good harvest. Rainfall: 4·35 inches on eleven days.—P. J. du Toit.

Paardekraal (*Winburg*).—Veld-grass dry enough to burn before the rain on 29th. Early-planted mealies have flowered and are very bad. Later mealies still good. Stock excellent, no deaths. A disappointing month. Rainfall: 2·56 inches on nine days.—Geo. S. Lowe.

NATAL.

Greytown.—A favourable month on the whole for mealie crops. Bag-worm on wattles very bad in many parts. Rainfall: 4·24 inches on twelve days.—J. M. Handley.

Dundee.—A very dry month for January, crops and veld wilting in places, but revived by the good rains on the 31st. Rainfall: 4·27 inches on eleven days.—West Thorrold.

Ladysmith.—Excellent rains during early part of month, 4·36 inches falling during the first fourteen days. Hot, dry weather prevailed from the 15th to the 27th, but was followed by very heavy rains, 5·25 inches falling during the last days of the month. Of this rainfall, 4·28 inches fell on the night of the 29th, when we experienced a very heavy storm lasting approximately five hours. During this storm the lightning was very intense for a considerable period. Six natives were killed by lightning in the vicinity of Pieters Station. The storm appears to have covered a fairly large area, Elandslaagte and other outlying parts reporting extremely heavy rain. The rush of water during this storm has caused considerable damage to roads, bridge approaches, etc. Rainfall: 9·66 inches on fourteen days.—D. A. R. Leathern.

Nottingham Road.—Dry towards end of the month. A little horse-sickness reported. Other stock healthy. Rainfall: 5·25 inches on eleven days.—Miss E. Smythe.

Ingwangwane (*Polela*).—During storm on 12th a fresh gale blew, lasting twenty minutes, which dropped at 5.50 p.m. to moderate breeze, and at 7.40 p.m. from north-west a moderate gale commenced, lasting thirty-five minutes, when it dropped suddenly to gentle breeze. Rainfall: 4·83 inches on fourteen days.—F. H. Houshold.

Mid-Illovo.—Splendid growing weather. Crops looking well. The new year opened with the maximum temperature for the month, 94 degrees. Total rainfall for month; 10·17 inches on twenty days, including 5·75 inches (mostly between 7 p.m. and 4 a.m.) on night of 4th.—Lt.-Col. J. W. V. Montgomery, C.M.G.

Hillcrest.—Month started with substantial rains, showing tendency to fall off as time went on. Good winds prevailed generally. All wells in district filled. Rainfall: 9·23 inches on twenty-one days.—T. Dawson Clothier.

Paulpietersburg.—Rainfall somewhat below average and made up more of local storms than is usual in January. Rainfall: 5·52 inches on thirteen days.—Dr. N. Lipscomb.

Bluebank (*Klip River*).—Everything promises for a record season. Rainfall: 5·59 inches on eleven days.—T. N. Niland.

Glückstadt (*Vryheid*).—Cold spells, cool nights, and overcast days, which retarded growth, prevailed throughout the major part of the month. Heavy rains fell on the 15th, but the rest of the month was comparatively dry, with nice warm and sunny days. Damaging weeds grow luxuriantly, and labour is very scarce. Stock is in good condition. Rainfall: 5·95 inches on ten days.—F. W. J. Schumann.

Middleton.—Crops in excellent condition. Rain on 29th arrived in time to prevent serious damage. Rainfall: 6·09 inches on eleven days.—O. L. Nel.

Rongpoort (*Weenen*).—Getting dry towards end of month. Mealies first starting to wilt. Exceedingly hot for a few days towards end of month. Rainfall: 4·05 inches on nine days.—J. H. Bartholomew.

Wolfenden (*Klip River*).—Rainfall of 29th registered 3·45 inches. The Modderspruit overflowed its banks, and completely covered the road bridge and washed away the approach on the south-east side. The spruit rose 30 feet. Rainfall: 8·95 inches on nine days.—E. J. Bustow.

Thornlea.—Droughty conditions prevailing. Rainfall: 3·42 inches on six days.—J. Martens.

CAPE PROVINCE.

Uitenhage.—Droughty conditions continue. River-flow very low. Rainfall: 1·02 inch on eight days.—Herbert Inggs.

Stutterheim.—15th, frost. Potato and bean crops injured. This month has been unusually dry. Crops and pasturage suffering badly for want of rain. Rainfall: 2·76 inches on twelve days.—F. C. Bousfield.

Bedford.—The rainfall for the month was 1·42 inch, spread over fourteen days, compared with 2·37 inches for the corresponding month of last year. Fruit is backwards and ill-developed, much falling from trees. The veld wears a green tinge for a day or two after rain, then turns brown. Water for stock is a problem. The changes of temperature have been trying to man and beast.—T. C. Hall.

Somerset East.—The promise held out by December's good rainfall has been unfulfilled. Drought continues. Municipal water restrictions continue in force. Fruit and vegetables scarce and expensive. Fruit badly affected by pests, while tomatoes are everywhere a failure owing to rust. Rainfall: 0·98 inch on eight days.—C. Harris.

Queenstown.—Showers have been very local. Several places in district no rain beyond light showers have fallen. Good rains wanted. Rainfall: 3·79 inches on 14 days.—H. Holley.

Kenhardt.—Drought continues. Rainfall: 0·10 inch on two days.—R. Seydell.

Kimberley.—Windy, hot days. Sultry nights. Every appearance of rain on most days. District is apparently in good condition judging from quantities of vegetables and fruit coming to market. Milk, butter, and cheese still plentiful and cheap. Rainfall: 1·67 inch on nine days.—C. H. Dowler.

Kokstad.—Heavy rains early in month, but total fall below average. Very cold snap on the 15th and 16th. Rainfall: 4·09 inches on fifteen days.—H. D. Coyte.

Graaff-Reinet (*The Convent*).—A very warm, dry month, the temperature on three days being above 100 degrees. Thunderstorms often threatened, but clouds generally dispersed. Winds chiefly from south or south-east. Rainfall: 0·41 inch on three days.—The Mother Superior.

Upington.—January was a hot and dry month. Rain badly needed. Fruit generally and lucerne below the water-furrow splendid. Considering the time of the year cattle and sheep in fairly good condition. One small swarm of locusts seen flying west. Rainfall: 0·54 inch on three days.—F. W. J. Schmidt.

Aliwal North.—A month of hot days, with only light rains until the last days of the month, when we had fine, soaking rains. Rainfall: 2·90 inches on thirteen days.—Alex. Alcock.

Vryburg.—Heavy clouds often came up and rain threatened without falling. More rain appears to have fallen around ridge which forms outskirts of town. Police lock-up on this ridge and rain-gauge there registered heavier falls. Usual extreme heat during January months not experienced. Rainfall: 2·74 inches on eleven days.—Sergt. White.

Grootfontein School of Agriculture (Middelburg).—The month was chiefly remarkable for the persistency of the direction of the wind, i.e. from the south to north-east via the east quadrant. At the same time the days were fairly divided between cloudy and clear. Extreme minimum temperature on 15th, 37·0 degrees. In the village of Middelburg young fruit was actually killed by frost, though at our station no damage was done. Rainfall: 0·97 inch on five days.—E. J. van Meerten.

Armoedsvlakte (Vryburg).—Very dry. Veld mostly withered already in the morning and only recovering after dark. Rainfall: 1·31 inch on seven days.—The Veterinary Research Officer.

Nelspoort (Beaufort West).—The weather for the greater part of month was cool and pleasant. The prevailing winds were from the south. On the days when the winds were from the north the weather was hot and oppressive. The highest temperature (101·0 degrees) was registered on the 1st. Only 0·01 inch ot rain was recorded during the month, and the veld is becoming dry.—Dr. P. Allan.

Riversdale.—Country is very dry. Fruit fairly good. Karroo part of district very dry. Water-supply for village good. Rainfall: 0·74 inch on four days.—Rev. Martin Johnson.

Rietfontein (Aliwal North).—Rain has fallen in such small amounts that it has not helped, and mealies and veld are getting very dry. Rainfall: 3·22 inches on fifteen days.—A. G. Smith.

Postmasburg.—Some locusts (voetgangers and flying) in the district, being followed by hundreds of thousands of birds. Rainfall: 1·62 inch on nine days.—D. Brown.

Queenstown.—Veld is in good condition, but a great deal more rain is required to restore the country and revive the springs. Rainfall: 3·85 inches on fourteen days.—J. F. C. Rein.

Tsolo.—14th, 15th, and 16th, very cold for this time of year. Minimum temperatures: 15th, 42·5 degrees; and 16th, 42·0 degrees. Snow on the Drakensberg. Rain badly wanted. Cattle falling off owing to the grass drying up. No disease. Rainfall: 1·71 inch on eleven days.—A. P. Tillard.

Louisvale (Kenhardt).—The month was dry and hot. Rainfall: 0·68 inch on two days, but the adjacent district has had considerably more. On many farms the drought has been relieved, and provided future showers fall the winter veld should be good. The river settlements are prospering.—Stuart N. Smith.

Port Alfred.—Weather during month has been very disappointing in the district generally, most parts of which are suffering severely from drought. Mealie crops practically burnt up. Orchards suffering; small fruit crops are expected. Rain fell locally, helping water-supply and saving some mealie crops. Stock remain healthy and in fair condition. Rainfall: 3·04 inches on five days.—W. H. Pascoe.

Dunbrody (Uitenhage).—It is hoped that the weather of New Year's Day, with 121·9 degrees in the shade and 0·66 evaporation, will not be repeated often. The little rain that has fallen has made no impression on the veld.

The high and constant winds quickly dry up all the moisture. Many cattle have died from the drought, some had to be suspended in hammocks and be hand-fed. Rainfall: 1·46 inch on six days. –Rev. Father Lallemand.

Sandflats (*Mount Currie*).—*Live Stock:* Conditions of all good, except younger sheep, which are, however, now improving with drier weather. *Veld:* Grass long and rank. First time it has had a chance to seed properly in years. *Crops:* Maize suffering from too much rain and top-grub. Wheat now being harvested, which is unusually late for this crop. Some teff already mown and stacked. Mean maximum temperature, 74·9 degrees; mean minimum temperature, 54·8 degrees; highest temperature, 85·5 degrees on 12th; lowest temperature, 41·0 degrees on 15th; lowest temperature on grass, 35·0 degrees on 15th. Rainfall: 4·95 inches on 12 days.—Hewson B. Corderoy.

Mount Fletcher.—Some thunderstorms accompanied by hail, no damage done. Stock in splendid condition, and a record mealie crop expected this season. Rainfall for month: 5·41 inches on twenty days, or a total of 17·68 inches since October.—J. McDougall.

Andriesfontein (*Hanover*).—First part of month very hot and dry. Rainfall: 0·91 inch on three days.—H. van der Merwe.

Sydney-on-Vaal (*Barkly West*).—Almost uniform maximum temperatures and minimum temperatures throughout the month. Rain fell by showers only, no extended periods of rainfall. Grass veld in seed. Cattle recovered good condition. Some swarms of flying locusts observed early in month, but no local hatchings of voetgangers. Exceptionally large flights of locust birds daily for three weeks or more from beginning of month. Rainfall: 3·49 inches on ten days.—J. G. Richards.

Fountain Head (*Fort Beaufort*).—Drought getting worse and worse, and the odd light showers don't do much good; we want a real good soaker. Rainfall: 1·00 inch on seven days.—C. S. Hockly.

Umnxsha (*Kingwilliamstown*).—13th January, 1925, heavy thunderstorm, hail, and rain, which did heavy damage to crops. Rainfall: 4·80 inches on seven days.—The Forester.

Riversdale (*Cathcart*).—20th January, 2·53 inches fell in one and a half hour, and did a lot of damage to fences and lands. The Kei River came down over its banks a few times from rains which fell higher up the river. Still very dry in some parts of this district. Rainfall: 4·18 inches on eight days.—C. R. Miles.

Hazelmere (*Stutterheim*).—This has been an exceptional month. Soil is so dry that 40 per cent. of the grass starts to wither after two days. Sheep fair; but water in dams is drying up. Rainfall: 1·87 inch on eleven days.—S. Arnold.

Hoogstede (*Albert*).—Over 2 inches of rain fell this month, but owing to the great heat the veld is in a dry condition, and most of the mealie crops will be a failure. Rainfall: 2·17 inches on seven days.—S. G. Griesel.

Vine Yard (*Albert*).—Cattle and sheep looking well. Good wheat crops, but mealies are not doing too well. Rainfall: 2·25 inches on five days.—C. J. Hoar.

Lauriston (*Barkly East*).—Farmers will reap record crops of wheat, rye, and oats. Rainfall: 4·50 inches on fourteen days.—H. R. Giddy.

Streepfontein (*Albert*).—1st January, 3·06 inches, with hail the size of hens' eggs (no damage reported by observer). Rainfall: 4·06 inches on five days.—P. J. Grobler.

New England (*Barkly East*).—3rd January, terrible hailstorm from 3 p.m. to 3.20 p.m.; hail lying thick for considerable time. Rainfall: 3·88 inches on eighteen days.—The Station Master.

Maclear (*East Griqualand*).—Too much moisture, fruit crop suffering from lack of sunshine. Rainfall: 3·56 inches on thirteen days.—C. F. Robertson.

Hopkins (*Kuruman*).—The rainfalls of November and December saved the stock in this portion of the Union, although very little rain fell here during January. Many farmers in this locality have had much more, and in all probability there may be some crops of mealies on dry lands. Stock in good condition. Rainfall: 0·46 inch on four days.—J. Langdon.

Doorn River (*Calvinia*).—No crops. Veld dried up. Dam dry for first time in eighteen years. Rainfall: 0·03 inch on one day.—W. F. Smith.

Schoonberg (*George*).—Crops and veld good, but more rain is required. Rainfall: 1·69 inches on seven days.—G. Raubenheimer.

Ovendale (Willowmore).—Veld in poor condition, caterpillars very bad. The stock is in fair condition. 30th January, cyclone passed over portion of Willowmore and destroyed seventeen houses; hail fell, stones the size of pigeon eggs, but did no damage. Rainfall: 2·04 inches on one day.—J. G. Kilian.

Rietfontein (*Colesberg*).—30th January, great damage done by flood (1·57 inch in five hours). Rainfall: 1·98 inch on three days.—H. van der Merwe.

Wolvekloof (*Steynsburg*).—Veld and cattle in good condition. Mealie crop promises to be a record. Rainfall: 1·23 inch on four days.—J. Kruger.

Ventersfontein (*Colesberg*).—Onion crops are very promising. Veld dry, but good. Stock, which are fetching very high prices, in good condition. Rainfall: 1·63 inch on four days.—R. van der Berg.

Theefontein (*Hanover*).—Wheat crops fair. Fruit plentiful, but in some cases wormy and attacked by numerous bugs and wasps. Rainfall: 1·27 inch on five days.—E. A. Murray.

Middlewater (*Colesberg*).—30th, 5·20 inches fell in seven and a half hours, doing a lot of damage to lands, fences, dams, etc. Rainfall: 5·70 inches on two days.—M. M. Dingle.

Ezelsfontein (*De Aar*).—Stock in fair condition, although veld seems very dry. Sheep in netted camps good, but herded sheep poor. Rainfall: 0·35 inch on one day.—A. Marais.

Mount Coke (*Kingwilliamstown*).—Between noon and 12.30 p.m. on the 21st January, 1925, hail fell the size of a small pea to the size of half a crown, doing considerable damage to stock and crops. Roofs and portions of houses were blown away. Trees were stripped of leaves, bark, and fruit. The area covered by this storm seems to be from Mount Coke Mission hence along the Mkangiso Stream, across the Buffalo at the bridge, hence up the Yellowwood River towards Blaney.—The Forester.

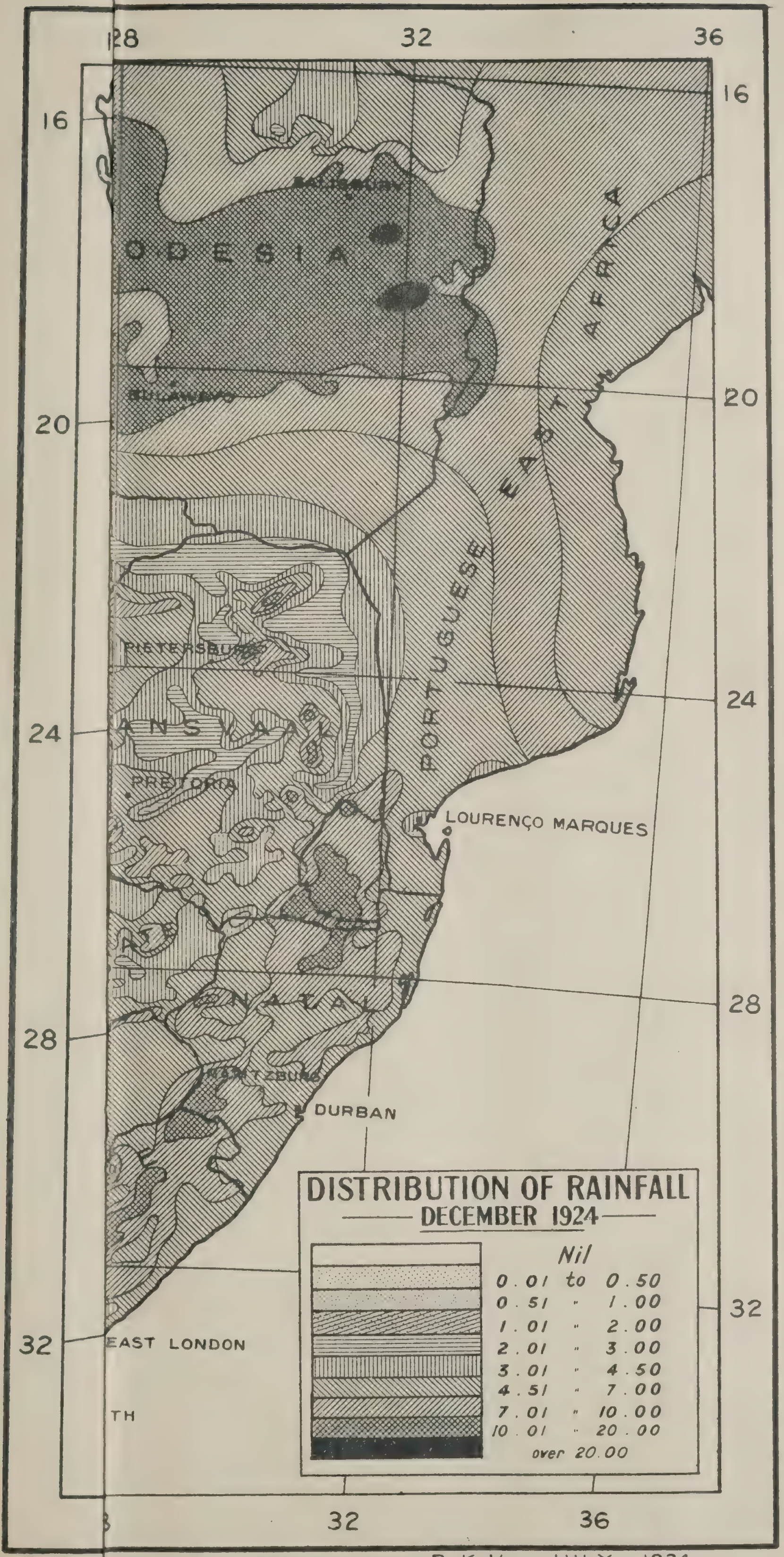
BECHUANALAND.

Kalamarie.—The rains this month have been very uneven, mostly showers, and very heavy in some parts of the district. The Melta and Mahalapye Rivers are still practically dry. The crops are wanting rain badly. The veld is looking well at present.—E. Smith.

Dikgatlong Ranch.—Ideal weather throughout the month. No locusts; veld magnificent. Rainfall: 6·71 inches on twelve days.—Paul Jousse.

BASUTOLAND.

Mafeteng.—Very hot spell 10th to 19th and from 21st to 29th. Severe thunderstorms on several days. Severe hailstorms. Crops damaged. Rainfall; 5·02 inches on eleven days.—F. Hodgson.

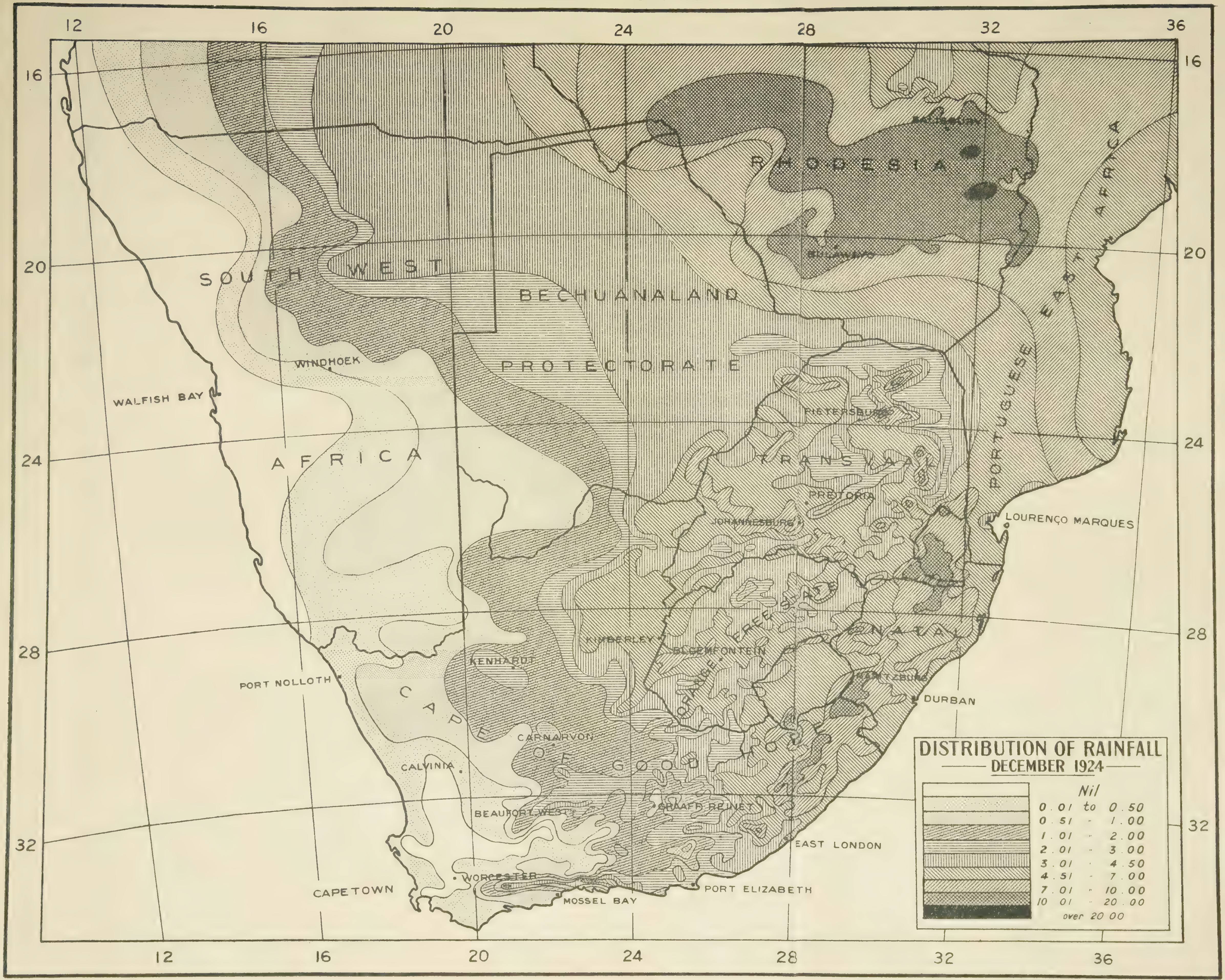


DISTRIBUTION OF RAINFALL

DECEMBER 1924

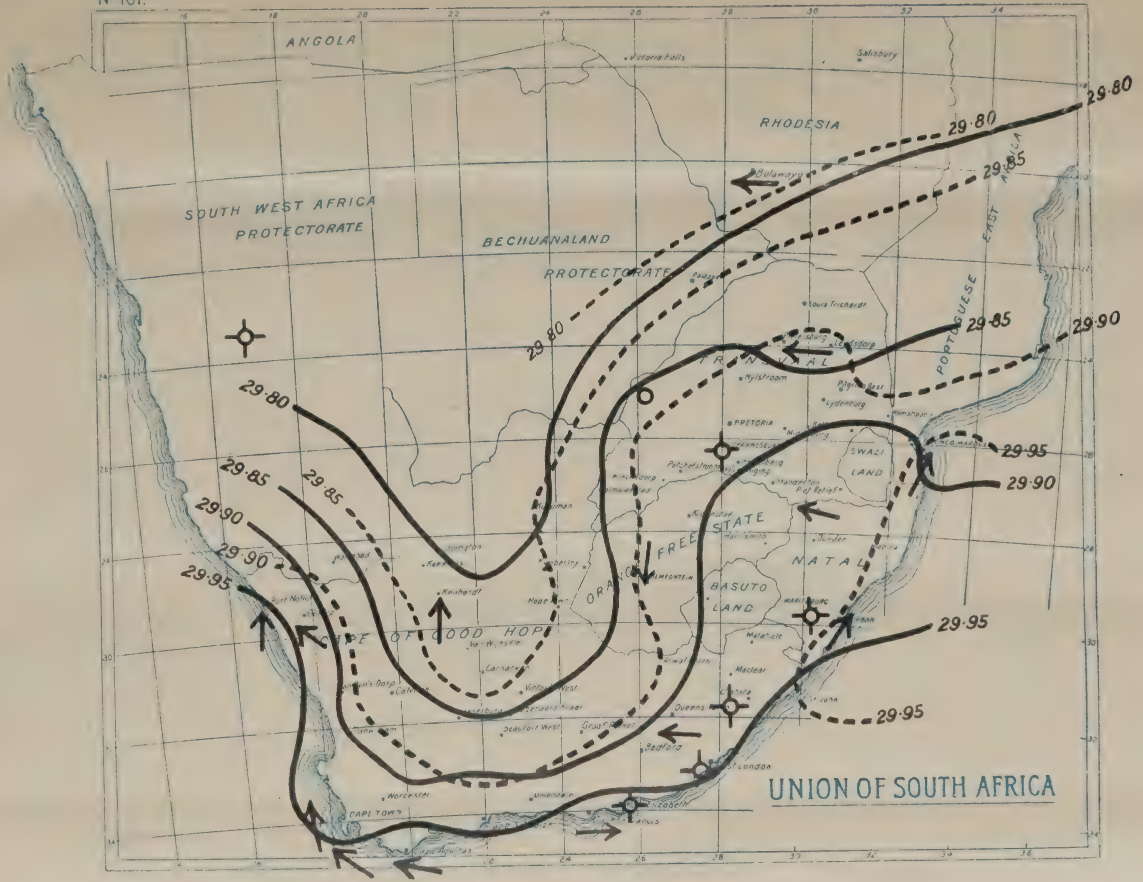
R.K.H. JULY, 1924.

SOUTH AFRICA



R. K. H. JULY, 1924.

N°101.



January, 1925. Prevailing Winds and Mean Atmospheric Pressure at 8.30 a.m.
The dotted lines indicate the normal distribution for January.

WEATHER CHARACTERISTICS FOR THE MONTH OF MARCH.

In the Transvaal the rainy season is now declining, and the precipitation is not so heavy as during the three preceding months. Wet spells, however, with soft rains lasting several days, sometimes occur. Over the remainder of the Union there is a general increase on the February rainfall, the normal rising to a maximum over the Cape, northern border, and on the north and central Karroo, and to a secondary maximum in the north-east and south-east of the Cape, in the Orange Free State, Zululand, and Swaziland. In Zululand, about 6 inches; in Swaziland, 5·5 inches; in Basutoland, 5 inches; in Natal, 4·5 inches; over the Transvaal, Kaffraria, and in the north-east of the Cape Province, 4 inches; over the Orange Free State and in the south-east of the Cape, 3·5 inches; over the Cape northern border, 3 inches; over the north and east-central Karroo, 2·5 inches; along the south coast, 2 inches; over the west-central and south Karroo and the Cape Peninsula, 1·5 inch; and in the south-west of the Cape and along the east coast, less than 1 inch may be expected. Thunderstorms are still of frequent occurrence.

Throughout the Union the mean day temperature is falling. It may be expected to reach about 73 degrees over the northern border of the Cape and the south Karroo; 72 degrees in Natal; 70 degrees over the east-central Karroo; 69 degrees along the west coast and in the south-west of the Cape; 68 degrees along the south coast and in the south-east of the Cape; 67 degrees in the Orange Free State and on the Transvaal high veld, the north Karroo, and the Cape Peninsula; 66 degrees in Kaffraria; 65 degrees over the north-east of the Cape; 64 degrees in Basutoland; and 62 degrees over the west-central Karroo. Hoar frost, with even an occasional killing frost, is apt to occur, especially during the last third of the month.

Over the summer rainfall area there is a general decreased frequency of all winds having an easterly component (that is, from north-north-east to south-south-east inclusive), and an increase of those having a westerly component. Although this statement is strictly true for Johannesburg, where the greatest increased frequency is in those from north-north-west, it requires a slight modification with regard to the Kimberley winds, where there is also a diminution of those from due west; whilst at East London the diminution in frequency extends to winds from north, north-north-west, and south-south-west, with, on the other hand, a marked increase of winds from north-east. Over the Cape Peninsula there is, coincident with a considerable decrease of southerly winds, an increase of winds from south-east and south-south-east, as well as of most winds having a westerly component. Except at Johannesburg, where there is a slight increase in velocity, winds show a decrease in force over the country.

Coincident with the diminution in strength of winds over the Cape Peninsula, there is a tendency to the formation of low-lying fogs over the south-west, but within the summer rainfall zone the quantity of cloud should be noticeably diminishing, and over the Transvaal and the Cape northern border the number of hours of bright sunshine is about 75 per cent. of the total number possible.

C. STEWART,
Pretoria. *Chief Meteorologist.*

AIR TEMPERATURES (SELF-REGISTERING THERMOMETERS IN THERMOMETER-SCREENS), JANUARY, 1925.

Place.	Observer.	Mean Maximum Temperature.	Mean Minimum Temperature.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
Transvaal—		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Barberton	Walter Grubb	82·8	63·3	73·0	73·2	− 0·2	93·0	29th	53·0	19th.
Belfast	The Forester	72·2	50·4	61·3	63·0	− 1·7	78·0	1st. 26th, 27th, and 29th	33·0	19th.
Bloemhof	C. J. van Tonder	89·2	63·1	76·2	74·5	+ 1·7	95·9	22nd	49·6	15th.
Ermelo	J. Dean	74·3	53·5	63·9	66·2	− 2·3	82·8	29th	43·2	19th.
Johannesburg (Observatory)	The Staff	75·4	55·3	65·3	65·4	− 0·1	84·0	20th	45·8	18th.
Klerksdorp (Strathmore)	Chas. Scott	84·3	60·3	72·3	73·9	− 1·6	92·0	20th	52·0	15th.
Komatipoort	H. J. Evans & A. H. White	90·1	68·5	79·3	80·5	− 1·2	99·0	10th	58·0	19th.
Louis Trichardt	P. J. Potgieter	77·0	59·0	68·0	70·6	− 2·6	86·0	27th	51·0	16th, 18th, and 19th.
Middelburg	—	—	—	—	68·2	—	—	—	—	—
Nylstroom	G. Bakker	81·1	60·6	70·8	72·3	− 1·5	89·5	27th	52·0	19th.
Pietersburg	W. J. Frankleyne	80·2	59·2	69·7	70·7	− 1·0	88·0	21st and 27th	49·0	19th.
Piet Retief	J. Werner	76·0	57·9	67·0	66·9	+ 0·1	87·0	29th	48·0	19th.
Pigeonhole (New Agatha)	Jno. McCallum	73·4	58·6	66·0	—	—	81·0	27th	51·0	18th.
Pilgrims Rest	E. M. Skea	75·8	58·7	67·2	68·0	− 0·8	82·0	27th and 29th	53·5	16th
Potchefstroom (Exp. Farm)	The Manager	82·4	59·5	71·0	70·2	+ 0·8	89·2	22nd	52·2	18th.
Pretoria (Meteorological Office)	The Staff	79·4	61·0	70·2	71·7	− 1·5	87·2	22nd	52·8	18th and 19th.
Rustenburg	A. Streatfield	85·1	60·6	72·8	74·4	− 1·6	100·0	13th	54·0	18th and 20th.
Standerton	—	—	—	—	67·8	—	—	—	—	—
Zeerust	H. Dietrich	86·5	62·8	74·6	74·4	+ 0·2	96·8	2nd	56·3	19th.
Swaziland—										
Mbabane	Swaziland Police	76·7	58·6	67·6	67·4	+ 0·2	87·0	29th	45·0	19th.
Orange Free State—										
Bethulie	J. J. Wardhaugh	86·6	57·7	72·2	73·3	− 1·1	93·0	12th	43·2	15th
Bloemfontein	G. A. Scheepers	85·4	59·1	72·2	72·4	− 0·2	91·4	27th	46·8	15th.
Harrismith	The Forester	72·6	52·8	62·7	64·8	− 2·1	81·5	12th	41·0	16th.
Kroonstad	A. C. Mason	85·2	59·5	72·4	72·0	+ 0·4	90·6	22nd	50·0	16th.
Ladybrand	The Forester	79·6	56·6	68·1	68·8	− 0·7	85·3	13th	48·0	15th and 16th.
Lindley	W. Murphy	81·7	57·8	69·8	68·5	+ 1·3	88·4	22nd	50·0	10th.
Natal—										
Dundee	West Thorrold	80·5	56·7	68·6	72·2	− 3·6	91·0	12th, 13th, and 29th.	48·0	16th, 17th, and 19th.
Durban (Point)	The Port Captain	81·7	70·5	76·1	76·6	− 0·5	88·2	12th	61·6	16th.
Empangeni	The Forester	82·9	67·4	75·2	77·0	− 1·8	101·0	31st	57·0	15th.
Estcourt	The Town Clerk	—	—	—	71·7	—	—	—	—	—
Hlabisa	E. E. Redgrove	80·2	63·0	71·6	74·4	− 2·8	91·0	29th	54·0	15th.
Ladysmith	D. A. R. Leathern	84·2	62·4	73·3	77·0	− 3·7	95·0	12th	52·0	15th.
Maritzburg (Mental Hospital)	The Superintendent	80·6	61·7	71·2	73·3	− 2·1	95·2	1st	51·5	17th.
Stanger	C. C. Foss	82·4	66·9	74·6	76·6	− 2·0	96·0	12th	57·0	15th.
Weenen	The Gaoler	84·2	61·3	72·8	77·0	− 4·2	95·0	12th	52·0	18th.

AIR TEMPERATURES, JANUARY, 1925—(*continued*).

Place.	Observer.	Mean Maximum Temperature.	Mean Minimum Temperature.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
Cape Province—		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Aliwal North	Alex. Alcock	85·7	56·7	71·2	69·6	+ 1·6	92·5	12th	45·0	15th.
Bedford	Thos. C. Hall	83·5	57·6	70·6	69·6	+ 1·0	103·0	1st	42·2	15th.
Capetown (Royal Observatory)	The Staff	79·6	59·8	69·7	69·3	+ 0·4	88·9	20th	49·0	15th.
Carnarvon	A. P. Malherbe	89·1	58·2	73·6	73·5	+ 0·1	98·0	1st	41·0	15th.
Clanwilliam	C. B. van Zijl	91·8	59·6	75·7	75·6	+ 0·1	109·0	1st	50·0	14th.
East London	The Port Captain	76·5	63·4	70·0	70·0	± 0·0	100·3	26th	53·5	15th.
Graaff-Reinet (Convent)	The Mother Superior	90·3	59·6	75·0	73·5	+ 1·5	107·8	1st	46·0	15th.
Grahamstown	The Vet. Res. Officer	77·8	54·5	66·2	68·5	− 2·3	102·2	1st	43·2	15th.
Groot Drakenstein	W. Franceys	84·9	60·4	72·6	70·2	+ 2·4	96·4	9th	47·5	14th.
Kenhardt	R. Seydell	96·0	65·3	80·6	78·4	+ 2·2	103·0	1st	48·0	14th.
Kimberley	C. H. Dowler	89·2	62·6	75·9	75·8	+ 0·1	95·5	22nd	44·0	15th.
Kingwilliamstown	W. A. Kindness	81·2	61·3	71·2	72·4	− 1·2	107·0	1st	54·0	14th and 25th.
Kokstad	H. D. Coyte	77·9	54·5	66·2	66·4	− 0·2	89·0	1st	40·0	15th.
Mafeking (Convent)	The Mother Superior	84·2	62·6	73·4	75·6	− 2·2	94·0	22nd	57·8	19th.
Mossel Bay (Cape St. Blaize)	The Lightkeeper	74·1	63·2	68·6	69·8	− 1·2	82·0	1st	54·0	13th and 14th.
Murraysburg	W. H. Rose-Innes	—	—	—	71·5	—	—	—	—	—
O'okiep	J. Burrows	84·8	58·0	71·4	70·2	+ 1·2	96·2	18th	43·4	14th.
Port Elizabeth	The Lightkeeper	75·5	63·1	69·3	69·9	− 0·6	83·0	28th	55·0	15th.
Port Nolloth	The Lightkeeper	64·8	53·3	59·0	59·9	− 0·9	71·4	12th	43·0	19th.
Port St. Johns (Cape Hermes)	The Lightkeeper	77·8	66·2	72·0	71·2	+ 0·8	82·0	11th and 30th	59·0	14th and 15th.
Queenstown	H. Holley	81·6	57·7	69·6	69·4	+ 0·2	98·0	1st	41·0	15th.
Somerset East	C. Harris	82·8	56·4	69·6	70·9	− 1·3	104·0	1st	42·1	15th.
Stutterheim	F. C. Bousfield	78·3	57·1	67·7	67·7	± 0·0	100·5	1st	41·2	15th.
Sydney's Hope	Rev. S. Rippon	77·0	57·8	67·4	67·6	− 0·2	97·0	1st	47·0	15th.
Uitenhage	H. Inggs	81·3	60·6	71·0	72·0	− 1·0	90·0	1st	46·5	15th.
Umtata	P. Hackett	80·9	59·7	70·3	69·9	+ 0·4	101·4	1st	45·7	15th.
Vryburg	Sergt. H. White	88·3	62·7	75·5	76·1	− 0·6	95·0	2nd and 22nd	54·0	15th.
Wynberg (Convent)	The Mother Superior	78·6	60·3	69·4	67·2	+ 2·2	86·8	20th	50·0	14th.
Basutoland—										
Mafeteng	F. Hodgson	78·7	55·6	67·2	70·1	− 2·9	84·0	12th, 27th, 28th, and 29th	43·0	15th.

RAINFALL, JANUARY, 1925.

Place.	Observer.	Month, January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
Transvaal—		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Barberton	W. Grubb	5·11	6·51	− 1·40	23·30	20·53	+ 2·77
Belfast	The Forester	4·45	6·15	− 1·70	21·01	22·08	− 1·07
Bethal	H. F. Joubert	2·54	5·33	− 2·79	19·59	20·94	− 1·35
Bloemhof	C. J. von Tonder	1·75	3·41	− 1·66	13·10	9·95	+ 3·15
Claremont	S.A. Police	4·61	4·60	+ 0·01	14·14	12·53	+ 1·61
Ermelo	The Forester	3·31	6·12	− 2·81	19·85	23·24	− 3·39
Haenertsburg	S.A. Police	9·98	9·39	+ 0·59	28·90	23·38	+ 5·52
Heidelberg	—	—	—	—	—	—	—
Johannesburg (Observatory)	The Staff	5·08	5·57	− 0·49	18·74	19·95	− 1·21
Johannesburg (Joubert Park)	The Supt. of Parks	6·87	6·30	+ 0·57	23·28	20·92	+ 2·36
Klerksdorp (Strathmore)	C. Scott	2·89	4·06	− 1·17	15·37	13·86	+ 1·51
Komatipoort	H. J. Evans & A. H. White	6·20	5·00	+ 1·20	24·70	14·91	+ 9·79
Louis Trichardt	R. J. Potgieter	7·01	6·37	+ 0·64	22·88	18·28	+ 4·60
Middelburg	—	—	—	—	—	—	—
Nylstroom	G. Bakker	4·33	5·20	− 0·87	15·83	15·96	− 0·13
Pietersburg	W. Frankleyne	4·96	4·28	+ 0·68	15·85	14·18	+ 1·67
Piet Retief	J. Werner	6·29	6·55	− 0·26	31·68	24·59	+ 7·09
Pigeonhole (New Agatha)	J. McCallum	11·27	9·07	+ 2·20	36·81	27·88	+ 8·93
Pilgrims Rest	E. M. Skea	8·32	8·37	− 0·05	25·91	22·71	+ 3·20
Potchefstroom (Exp. Farm)	The Manager	4·31	4·15	+ 0·16	18·26	15·17	+ 3·09
Pretoria (Meteorological Office)	The Staff	5·00	5·86	− 0·86	20·04	19·33	+ 0·71
Rooiberg	N. H. Monro	4·09	5·99	− 1·90	14·98	16·65	− 1·67
Rustenburg	A. Streatfield	2·84	5·03	− 2·19	16·38	16·98	− 0·60
Standerton	—	—	—	—	—	—	—
Wakkerstroom	J. Cilliers	7·50	6·10	+ 1·40	23·84	21·50	+ 2·34
Woodbush I.	The Forester	14·54	16·77	− 2·23	47·86	42·85	+ 5·01
Zeerust	H. Dietrich	1·46	4·45	− 2·99	16·21	14·18	+ 2·03
Swaziland—							
Mbabane	Swaziland Police	6·53	10·37	− 3·84	46·30	33·88	+12·42
Orange Free State—							
Bethulie	J. J. Wardhaugh	3·37	2·64	+ 0·73	10·90	8·83	+ 2·07
Bloemfontein	G. A. Scheepers	2·84	3·76	− 0·92	12·92	11·55	+ 1·37
Boshof	The Postmaster	1·79	3·05	− 1·26	11·60	10·41	+ 1·19
Harrismith	The Forester	2·62	5·04	− 2·42	19·94	19·02	+ 0·92
Kroonstad	A. C. Mason	2·24	4·21	− 1·97	19·55	14·15	+ 5·40
Ladybrand	The Forester	3·47	4·78	− 1·31	23·87	16·77	+ 7·10
Lindley	The Gaoler	3·22	4·26	− 1·04	—	14·92	—

RAINFALL, JANUARY, 1925—*(continued)*.

Place.	Observer.	Month, January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
Natal—		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Dundee	W. Thorrold	4·27	6·04	− 1·77	23·47	20·47	+ 3·00
Durban (Point)	The Port Captain	3·08	4·36	1·28	22·77	25·08	− 2·31
Empangeni	The Forester	4·52	5·88	− 1·36	31·02	27·72	+ 3·30
Estcourt	The Town Clerk	6·33	5·59	+ 0·74	27·80	17·93	+ 9·87
Hlabisa	E. E. Redgrove	7·08	7·25	− 0·17	32·02	28·17	+ 3·85
Howick	The Gaoler	5·76	5·24	+ 0·52	22·38	20·27	+ 2·11
Ladysmith	D. A. R. Leathern	9·66	4·65	+ 5·01	29·96	16·90	+13·06
Maritzburg (Mental Hospital)	The Staff	5·89	5·98	− 0·09	26·49	23·24	+ 3·25
Stanger	C. C. Foss	6·56	5·25	+ 1·31	30·76	27·75	+ 3·01
Vryheid	The Gaoler	4·97	6·89	− 1·92	24·07	23·66	+ 0·41
Weenen	The Gaoler	5·09	5·52	− 0·43	23·58	17·62	+ 5·96
Cape Province—							
Aliwal North	Alex. Alcock	2·90	2·89	+ 0·01	10·51	10·65	− 0·14
Beaufort West	The Gaoler	0·90	1·09	− 0·19	3·02	4·59	− 1·57
Bedford	T. C. Hall	1·42	3·37	− 1·95	9·43	14·38	− 4·95
Britstown	S.A. Police	1·73	1·14	+ 0·59	5·31	4·38	+ 0·93
Calvinia	The Gaoler	0·03	0·37	− 0·34	3·17	3·86	− 0·69
Capetown (Royal Observatory)	The Staff	0·59	0·69	− 0·10	10·83	13·61	− 2·78
Ceres	The Gaoler	0·54	1·02	− 0·48	19·40	23·81	− 4·41
Carnarvon	A. P. Malherbe	0·17	1·02	− 0·85	—	3·26	—
Clanwilliam	The Gaoler	0·01	0·22	− 0·21	3·35	4·55	− 1·20
Concordia	F. R. Carstens	0·07	0·18	− 0·11	2·25	2·88	− 0·63
Driefontein (French Hoek)	The Forester	2·37	2·20	+ 0·17	41·16	40·63	+ 0·53
East London	A. Downie	3·58	3·19	+ 0·39	14·56	19·44	− 4·88
Fraserburg	The Gaoler	0·00	0·73	− 0·73	1·40	2·73	− 1·33
Grahamstown	The Vet. Res. Officer	1·65	2·53	− 0·88	9·53	16·33	− 6·80
Garies	The Gaoler	0·00	0·14	− 0·14	—	2·65	—
Graaff-Reinet (Convent)	The Mother Superior	0·41	1·37	− 0·96	4·21	7·04	− 2·83
Groot Drakenstein	A. L. Franceys	0·89	1·10	− 0·21	19·47	19·68	− 0·21
Griquatown	The Gaoler	1·21	1·76	− 0·55	—	5·45	—
George (Rectory)	Rev. Canon B. Price	2·96	3·08	− 0·12	21·47	19·54	+ 1·93
Hanover	The Gaoler	0·45	1·65	− 1·20	3·81	5·72	− 1·91
Hopetown	The Gaoler	—	1·89	—	—	5·65	—
Kenhardt	R. Seydell	0·10	0·57	− 0·47	2·71	2·10	+ 0·61
Kimberley	H. D. Dowler	1·67	2·33	− 0·66	10·89	8·06	+ 2·83
Knysna	The Gaoler	1·87	2·10	− 0·23	16·37	17·01	− 0·64
Kokstad	H. D. Coyte	4·09	4·52	− 0·43	23·03	16·17	+ 6·86
Kingwilliamstown	W. Kindness	2·31	2·54	− 0·23	11·03	14·20	− 3·17
Kuruman	Resident Magistrate	2·99	3·29	− 0·30	—	8·22	—
Mafeking (Convent)	The Mother Superior	4·26	4·23	+ 0·03	16·05	13·49	+ 2·56

RAINFALL, JANUARY, 1925—(*continued*).

Place.	Observer.	Month, January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Mossel Bay (Cape St. Blaize)...	The Lightkeeper........	0·98	1·18	− 0·20	7·13	9·67	− 2·54
Murraysburg..................	W. Rose-Innes.........	—	1·11	—	—	4·68	—
O'okiep.......................	J. Burrows............	0·03	0·21	− 0·18	1·21	3·51	− 2·30
Philipstown..................	The Gaoler............	1·16	1·69	− 0·53	5·94	5·85	+ 0·09
Piquetberg....................	The Gaoler............	0·69	0·55	+ 0·14	—	11·98	—
Port Elizabeth................	The Lightkeeper........	0·95	1·20	− 0·25	—	13·32	—
Port St. Johns (Cape Hermes).	The Lightkeeper........	5·99	4·92	+ 1·07	26·43	29·89	− 3·46
Port Nolloth..................	The Lightkeeper........	0·18	0·07	+ 0·11	1·09	1·15	− 0·06
Prieska.......................	The Gaoler............	0·29	1·23	− 0·94	3·83	3·65	+ 0·18
Queenstown....................	H. Holley.............	3·79	3·38	+ 0·41	12·18	12·22	− 0·04
Steytlerville..................	The Gaoler............	0·25	0·82	− 0·57	2·63	4·54	− 1·91
Sutherland....................	The Gaoler............	—	0·50	—	—	4·47	—
Swellendam....................	The Gaoler............	1·55	2·41	− 0·85	—	18·01	—
Sydney's Hope.................	Rev. S. Rippon........	1·50	2·06	− 0·56	11·89	12·98	− 1·09
Somerset East.................	C. Harris.............	0·98	2·79	− 1·81	8·31	14·00	− 5·69
Stutterheim...................	F. C. Bousfield........	2·76	3·92	− 1·16	12·37	17·13	− 4·76
Uitenhage.....................	H. Inggs..............	1·02	1·11	− 0·09	7·97	9·55	− 1·58
Umtata........................	B. J. Hackitt..........	1·92	3·56	− 1·64	12·43	14·54	− 2·11
Uniondale.....................	The Gaoler............	0·64	0·68	− 0·04	6·89	7·06	− 0·17
Upington......................	The Gaoler............	0·54	0·83	− 0·29	2·67	2·80	− 0·13
Victoria West.................	The Gaoler............	0·40	1·05	− 0·65	4·23	4·23	± 0·00
Vryburg.......................	Chas. Butler..........	2·74	4·15	− 1·41	11·27	10·05	+ 1·22
Worcester.....................	The Gaoler............	—	0·25	—	—	6·91	—
Wynberg (Convent).............	The Mother Superior...	1·38	1·37	+ 0·01	22·47	27·21	− 4·74
Basutoland—							
Mafeteng......................	F. Hodgson............	5·02	5·48	− 0·46	19·57	17·81	+ 1·76
South-West Africa—							
Aroab.........................	S.W.A. Police.........	0·52	1·40	− 0·88	0·91	2·94	− 2·03
Aus...........................	E. Martins............	0·08	0·22	− 0·14	0·87	1·52	− 0·65
Bethanie......................	Rev. Peter............	1·13	0·72	+ 0·41	2·65	1·49	+ 1·16
Duestenbrock..................	R. Matthiessen.........	3·51	2·42	+ 1·09	5·40	4·66	+ 0·74
Gabis.........................	Rev. P. Rehor.........	0·18	0·09	+ 0·09	0·77	1·41	− 0·64
Garinais......................	F. Bentling...........	1·15	0·53	+ 0·62	2·35	2·12	+ 0·23
Gibeon........................	The Postmaster........	0·96	1·32	− 0·36	1·55	2·50	− 0·95
Gobabis.......................	Rev. Irle.............	2·23	3·96	− 0·73	5·44	7·76	− 2·32
Grootfontein..................	Pitkowski.............	6·00	5·48	+ 0·52	13·64	12·05	+ 1·59
Gr. Witvley...................	G. Maas...............	2·80	3·02	− 0·22	6·60	6·68	− 0·08

RAINFALL, JANUARY, 1925—(*continued*).

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		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Haribes	G. Freund	1·59	0·62	+ 0·97	2·27	2·24	+ 0·03
Hierachabis	Rev. P. Stroka	0·63	0·25	+ 0·38	0·93	1·16	− 0·23
Kalkfontein S.	S.W.A. Police	0·22	0·21	+ 0·01	1·13	0·79	+ 0·34
Franzfontein	H. Janson	3·33	1·94	+ 1·39	3·94	4·15	− 0·21
Luderitz Bay	E. Stoeber	0·00	0·01	− 0·01	0·01	0·27	− 0·26
Maltahoehe	E. Just	1·46	1·46	± 0·00	1·75	2·39	− 0·64
Neu Heusis	Liebig's Extract Co.	2·87	3·06	− 1·19	3·54	5·72	− 2·18
Okahandja	B. Templin	4·00	3·00	+ 1·00	7·87	6·08	+ 1·79
Okasangumingo	R. H. A. Schneider	2·99	2·57	+ 0·42	5·87	7·80	− 1·93
Omaruru	The Postmaster	3·09	6·73	− 3·64	4·80	9·18	− 4·38
Otjiwarongo	The Magistrate	4·70	2·82	+ 1·88	8·92	6·74	+ 2·18
Outjo	The Magistrate	4·85	3·72	+ 1·13	8·28	7·44	+ 0·84
Rehoboth	The Postmaster	1·14	2·80	− 1·66	1·43	5·35	− 3·92
Rietfontein	Eichler	4·66	3·70	+ 0·96	8·99	9·53	− 0·54
Swakopmund	The Gaoler	0·00	0·10	− 0·10	0·10	0·39	− 0·29
Tsumeb	Ing. Schetter	7·51	5·58	+ 1·93	16·73	12·49	+ 4·24
Usakos	Rev. Diehl	1·36	1·04	+ 0·32	2·25	2·02	+ 0·23
Voigtsgrund	A. Voigts	2·49	0·92	+ 1·57	3·03	2·14	+ 0·89
Warmbad	E. Luchtenstein	0·00	0·29	− 0·29	0·74	0·99	− 0·25
Waterburg	D. Hahn	2·50	4·68	− 2·18	7·20	9·71	− 2·51
Wilhelmstal	W. Boehmker	1·61	2·64	− 1·03	3·33	5·26	− 1·93
Windhoek	Observatory	3·08	3·20	− 0·12	5·70	6·43	− 0·73

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MONTHLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE.

Vol. VI. FEBRUARY, 1925. No. 62.

Mean atmospheric pressure higher than usual in the Transvaal, Free State, Natal, and east of the Cape Province; practically normal in the west and south; mean temperature about $1\frac{1}{2}$ degree higher than usual, with days slightly less than 1 degree and nights almost 2 degrees in excess of normal: some very warm days over the interior about the beginning of the month, and a fairly general hot, dry spell during the latter half of the month, with some excessively high temperatures, particularly in the south and west of the Cape Province; light rains mingled with local intense falls of considerable amount, rendering the precipitation very patchy in distribution; some severe thunderstorms, causing some fatalities from lightning; a few hailstorms, sometimes of destructive violence; an excess of rainfall in parts of the north, east, west, and south-west of the Transvaal, the north and west of the Free State, the centre of Natal, in Zululand, also over the greater part of the northern Karroo, the west coastal area and portions of the central Karroo, of the north-east, and of Kaffraria; a break-up of the drought in Namaqualand; precipitation subnormal elsewhere; a partial drought over a considerable portion of the centre, north, and the eastern high veld in the Transvaal; a continuation of droughty conditions over the south-east, and part of the south of the Cape Province; some drying winds; several destructive windstorms: these were the leading features of the weather of February, 1925.

Pressure.—Mean atmospheric pressure for February was, as may be seen from the accompanying map, about five-hundredths of an inch above the average over the Transvaal, Free State, and Natal, but practically normal in the west and south of the Cape Province. The equatorial "low" was prominent during the first two-thirds of the month. On the morning of the 1st, low pressure covered the whole of the Union, the axis being slightly to the west of the centre of the country. Conditions remained the same on the 2nd, except for a general rise of about half-a-tenth of an inch. On the 3rd, the pressure distribution practically was the same as on the 2nd, but a distinct "low" had formed over Madagascar, where pressure had been falling steadily since the 1st. On these three days rain fell over the Transvaal, Rhodesia, and South-West Africa, as well as at Tananarive; on the 3rd, however, precipitation in the Transvaal was confined mainly to the east, north, and west. On the 4th, it was seen that pressure had fallen about two-tenths of an inch along the south coast, and to a somewhat less extent in the east, but remained constant in the west and over the northern interior. By the 5th, the coastal "low" had disappeared, pressure having risen there by two-tenths of an inch, whilst the interior isobars had flattened out considerably; during the preceding twenty-four hours rain had fallen over the south-west Cape, in Rhodesia, and South-West Africa. On the 6th, the 30-inch isobar which had been lying along the west and south coasts on the previous day, lay over the east and south-east, pressure there having risen about a tenth of an inch, whilst the interior isobars had again assumed a north and south trend; in the intervening twenty-four hours some rain had fallen over the south-east Cape, Natal, the east of the Transvaal, the south and centre of the Free State. In Madagascar, pressure, which had reached its minimum on the 4th and 5th, had risen one-tenth of an inch on the 6th. By the morning of the 7th, pressure had decreased generally, the "low" over the interior had pushed further south, affecting the south-west; some rain had fallen over the southern half of the Transvaal, the greater part of the Free State, Basutoland, and Kaffraria. On the 8th, the head of an inverted V-depression was situated on the south-east and south coasts, while the interior "low" had retreated some distance northwards; rain had fallen over practically the same area as on the previous twenty-four-hour period. On the 9th, it was seen that the coastal "low" was centred over the Natal coast, and pressure had increased considerably, by a quarter to two-tenths of an inch in the west and south, but to a less extent over the interior; showers had fallen over the greater part of the Union and Rhodesia. On the 10th, a further increase had taken place, the highest isobar of 30·20 inches lying along the south and south-east; rain had fallen over the eastern half of the Union. On the 11th, pressure had again fallen generally over the Union, but had remained practically constant over Rhodesia and South-West Africa; a fragment of high pressure lay over Natal, Transvaal, and Free State; the interior "low" had pushed southwards to the coast, and a 30-inch isobar lay along the south coast; rain had fallen over a more limited portion of the east and in Rhodesia. On the 12th, pressure had risen about two-tenths of an inch on the south and south-west coasts, where the highest isobar (30·10 inches) was to be found; over the northern interior the rise was much less, barely half a tenth of an inch; meanwhile, rain had fallen over the greater part of the Transvaal, the north of the Free State, and portions of the central Karroo, the north-east and south-west of the Cape Province. On the 13th, there had occurred a still further rise over Natal of about half-a-tenth of an inch, whilst the interior "low" had pushed southwards and was affecting the west and south-west coasts, causing the isobars to be in a north-east to south-west direction over the greater portion of the country. An increase in the gradient caused moderate to high north-east to east winds over practically the whole country; rain had continued to fall over the eastern half of the country, extending to the south-east coast, as well as in South-West Africa and Rhodesia. On the 14th, a general fall had taken place, except in the south-west, where a slight rise occurred; the Union then lay under the influence of two complementary "lows," one over the northern interior and the second on the south-east coast; in the preceding interval rain had fallen over practically the whole of the summer rainfall area, including South-West Africa and Rhodesia, but not along the south coast. On the 15th, the coastal "low" had moved to the Natal coast, pressure had fallen generally in the east, but remained practically the same over the west and centre; gradients had decreased considerably; scattered showers had fallen over the Free State and central Cape and the south of Natal, as well as over the adjoining territories. By the morning of the 16th, a slight rise had taken place in the west and a slight fall in the east; the interior "low" was centred over the north of South-West Africa, while the coastal "low" lay in the same position as the previous day; rain had occurred locally in the east and west of the Transvaal, the north and east of the Free State, Natal, and part of Kaffraria, the south-west Cape, also South-West Africa and the north of Rhodesia. On the 17th, it was seen that the "low" on the east coast had been replaced by portion of a high-pressure area; pressure had fallen slightly in the west, but risen to a small extent over the interior; rain was reported as having fallen on the previous day over the northern half of the Transvaal, also the south-east, Natal, and portions of the south-west and south coast of the Cape, of South-West Africa, and Northern Rhodesia; gradients were steeper and winds stronger in the north-east of the Union. On the 18th, pressure, although slightly less, was still high in the east, but had fallen from one to two-tenths of an inch along the south coast, the interior "low" extending to the coast and remained steady in the interior; local showers had fallen over the west, north, and east of the Transvaal and Natal, part of Gordonia, South-West Africa, and Rhodesia. On the 19th, conditions were practically the same as on the preceding morning; rain had fallen over portions of the Free State, particularly the centre and south, the greater part of the inner plateau, including Namaqualand, and the east of the Cape Province, Southern Rhodesia, and the north of South-West Africa. On the 20th, pressure had risen considerably, about three-tenths of an inch, on the south coast, and slightly, about one-twentieth of an inch, over the west and north-western interior, but remained practically steady in the north-east; these changes resulted in a wedge of high pressure lying in a north-east to south-west direction and separating two relatively low areas, one of which lay on the coast of Natal and the other in the north-west over South-West Africa; rains had fallen over part of the south-west, the greater portion of the innermost plateau as far as the north of the Free State, parts of the east of the Cape, reaching the coast in Kaffraria and the south of Natal, also in Rhodesia and South-West Africa. On the 21st, a portion of the anticyclone, from which the wedge of the previous day protruded, occupied the eastern half of the Union, the "low" on the Natal coast had disappeared, and a "secondary" had formed on the west coast; local showers had fallen over parts of the interior, the south coast, and the east of the Cape, and rain was fairly general over the Transvaal, the north, east, and south of the Free State, and in Natal, also in Rhodesia and the north of South-West Africa. On the 22nd, it was seen that the high pressure in the east had decreased in extent, and a fall had occurred in the south, by two-tenths to three-tenths of an inch, and by about a tenth of an inch in the west, where the "secondary" persisted; a few local showers had occurred in Namaqualand, the west of the interior plateau, the south and west of the Transvaal, Natal, Rhodesia, and the extreme north, as well as on the coast of South-West Africa. On the 23rd, the country was under the influence of a "high," except in the south-east, where a fragment of a low-pressure area lay on the coast; the kink in the isobars still persisted in the west, pressure was lowest over South-West Africa; some rain fell over the west of the Karroos, at one or two places in the Transvaal, the north of South-West Africa, and of Rhodesia. On the 24th, the "low" off the south-east coast had disappeared, its position being occupied by the central portion of an anticyclone, the isobars of which trended from north-east to south-west, covering practically the whole of the Union; rain had occurred over the major portion of the eastern half of the Cape Province, also in the south and south-east of the Free State, and a few stations in Natal and the west of the northern Karroo, also in South-West Africa and the north of Rhodesia. On the 25th, the anticyclone had weakened slightly in the east, but continued to affect the whole of the Union, whilst there were indications of the formation of a V-depression over South-West Africa and the west of the Cape; rain had fallen over the same area as on the previous day, but had also affected the north and centre of the Free State and the east of the Transvaal high veld. By the morning of the 26th, a general fall in pressure had occurred; the "low" in the west was more definitely defined, apparently accompanied by a complicated system of "secondaries"; the distribution of rainfall was much more limited in extent, being confined mainly to the south, east, and north of the Transvaal, Natal, and portion of the adjacent divisions of the Cape, as well as the north and east of the Free State. On the 27th, a well-defined "low" lay over the north-west interior, with a complementary "low" on the south-east Cape, whilst the north-east of the Union was under the influence of the remains of the anticyclone, which had weakened slightly since the previous day; there were also indications of a "high" off the west coast; the rain that had fallen was limited almost wholly to the Transvaal. On the 28th, the western "low" had dispersed slightly; a wedge of relatively high pressure separated the former from the remains of the depression of the previous day, that had moved apparently to the north-east and now lay off Natal; showers had fallen over the south-west, the western part of the south coast, and the interior plateau of the Cape Province, as well as the south and north-west of the Free State and a few stations in the north-west of the Transvaal, and the north of South-West Africa. An interesting feature of the pressure distribution was the persistence of a secondary loop of low pressure in the west between the 21st and the 27th, during which period temperatures exceeding 100 degrees were recorded daily at Klaver, the daily maxima being: 20th, 101·7 degrees; 21st, 112·8 degrees; 22nd, 106·0 degrees; 23rd, 102·6 degrees; 24th, 108·9 degrees; 25th, 109·0 degrees; 26th, 112·2 degrees; 27th, 100·3 degrees.

Temperature.—The mean temperature for February was 72·5 degrees, or 1·3 degree higher than usual. This excess was due to the mean day temperature (83·4 degrees) being 1·1 degree and the mean night temperature (61·6 degrees) being 1·6 degree higher than the corresponding average values. The largest excess over the different Provinces was 2·7 degrees over the Cape Province, where the mean for the month was 73·8 degrees; the mean maximum (85·2 degrees) was 3·0 degrees and the mean minimum (62·4 degrees) was 2·4 degrees above the respective normals. Over the Transvaal, the mean for this month, viz., 71·0 degrees, was 1 degree higher than usual. In this case the surplus was almost equally divided between the days and the nights, the mean maximum (82·0 degrees) and the mean minimum (60·0 degrees) showing excesses of 1·1 degree and 0·9 degree respectively. On the other hand, the means for this month over the Free State (69·1 degrees) and Natal (73·8 degrees) were 0·1 degree and 1·4 degree respectively lower than the corresponding normals. In the Free State, the mean maximum temperature (80·3 degrees) was 0·5 degree lower and the mean minimum (57·9 degrees) was 0·3 degree higher than usual. In Natal, the mean day temperature of 82·7 degrees was 4·2 degrees lower and the mean night temperature (65·0 degrees) was 1·5 degree higher than the respective normals. An examination of the means for the individual stations shows that the values for the different Provinces fairly accurately reflects the conditions prevailing throughout these areas. Thus the Transvaal stations showed means for this month mostly above the corresponding averages, the excesses being mostly between 1 degree and 2 degrees, but varying from 0·3 degree at Potchefstroom to 2·9 degrees at Barberton. The few exceptional stations were confined to the extreme north, where Louis Trichardt was 1·0 degree cooler than usual; the west and south-west, where deficits of less than a degree occurred at Rustenburg and Klerksdorp. In the Free State, the monthly means were mostly lower than usual by considerably under 1 degree, the deficits lying between 0·1 degree at Bethulie in the south and 0·7 degree at Harrismith in the north-east. Bloemfontein, however, showed a surplus of 0·6 degree. In Natal, Durban was the only station showing a monthly temperature in excess of normal, whilst Hlabisa, in Zululand, experienced the same as usual; at the other stations deficits occurred, ranging from 1·0 degree at Stanger to 3·0 degrees at Weenen. In the Cape Province, the mean temperature was in excess of the average at all stations, with the exception of Vryburg, in Bechuanaland, where a deficit of 0·4 degree was experienced. The surplus amounts were mostly between 1·5 degree and 3·0 degrees in the south and east, but exceeded these quantities over the greater part of the interior plateaux, the west, and south-west. The excesses ranged from 0·1 degree at Port Nolloth to 7·4 degrees at Carnarvon. Both days and nights were warmer than usual at most of the stations in the Transvaal. The excesses in the day temperatures varied from 0·4 degree at Pilgrims Rest to 4·2 degrees at Barberton. A few stations, however, in the east, north, and south-west, the mean maxima were lower than usual, by amounts lying between 0·1 degree at Komatipoort and 1·4 degree at Klerksdorp and Potchefstroom. The excesses in the night temperatures varied between 0·1 degree at Pilgrims Rest and 3·2 degrees at Bloemhof. At a few stations in the eastern high veld, the north, west, and south-west, deficits between 0·2 degree at Klerksdorp and 1·9 degree at Rustenburg were met with. Klerksdorp was the only station showing a shortage in both the day and night temperatures. In the Free State, an excess in both day and night temperatures was met with only at Bloemfontein, the surplus in each being less than 1 degree. The most common conditions in this Province were deficient day and excess night temperatures; this relationship held at the stations in the north, north-east, east, and south. The deficits in the mean maxima varied between 0·6 degree at Bethulie and 2·0 degrees at Harrismith, and the excesses in the mean minima between 0·2 degree at Lindley and 0·7 degree at Harrismith and Ladybrand. At Kroonstad the reverse state obtained, the days being slightly warmer and the nights colder than usual. Subnormal day temperatures were common to all stations in Natal, the *minus* quantities being least on or near the coast and greatest in the west and centre; the shortages ranged between 1·1 degree at Hlabisa and 7·2 degrees at Ladysmith. Except at Dundee, where both days and nights were cooler than usual, the mean minima were higher than usual, mostly by amounts between 1 degree and 2 degrees, but varying from 1·1 degree at Hlabisa and Weenen and 3·7 degrees at Durban. In the Cape Province, both day and night temperatures were mostly in considerable excess of the average, except in Bechuanaland, the west of the northern border, and the coast of Kaffraria, where the days were cooler and the nights warmer than usual. The excesses in the day or mean maximum temperatures were mostly between 2 and 4 degrees, but varied from 0·1 degree at Port Nolloth to 9·3 degrees at Carnarvon. The surplus amounts in the case of the night or mean minimum temperatures were also generally between 2 and 4 degrees, but ranged from 0·3 degree at East London to 6·4 degrees at O'okiep. The deficits in the mean maxima over the more limited areas, indicated above, lay between 0·1 degree at Port St. Johns and 2·2 degrees at Vryburg. Generally speaking, the excesses were less at those stations in the east than in the west and south-west and over the interior. During February the stations having the highest and lowest mean monthly temperature respectively were both situated in the Cape Province. The warmest station was Kenhardt, with a mean temperature of 84·0 degrees, and the coolest, Port Nolloth, with

60·2 degrees, a difference of 23·8 degrees. The stations in the other Provinces having these corresponding temperatures were as follows:—*Transvaal:* warmest, Komatipoort, 80·2 degrees; coolest, Belfast, 62·8 degrees; difference, 17·4 degrees. *Natal:* warmest, Durban, 77·6 degrees; coolest, Dundee, 69·0 degrees; difference, 8·6 degrees. *Orange Free State:* warmest, Bloemfontein and Bethulie, both 71·8 degrees; coolest, Harrismith, 63·9 degrees; difference, 7·9 degrees. The mean day temperatures varied between 98·4 degrees at Kenhardt and 66·8 degrees at Port Nolloth, a difference of 31·6 degrees; while the mean night temperatures ranged from 72·0 at Durban to 50·5 degrees at Belfast, a difference of 21·5 degrees. The warmest periods during February were 3rd to 6th, 8th, 9th, 15th, 16th, 20th to 24th, 26th, and 27th, most widely on the 4th, 5th, 8th, 9th, and 22nd to 23rd. Temperatures exceeding 90 degrees were common to all the Provinces, but readings of 100 degrees were confined to the Cape Province. These extreme temperatures were of most common occurrence at stations on the south coast, the south-east, the southern and east-central Karroos, as well as on the west coast on the 22nd. The highest temperature recorded on this date was 115·7 degrees at Liwandi-Addo, in the Division of Uitenhage (not included in the attached table). The prolonged spell of eight days at Klaver (District Van Rhynsdorp) with temperatures exceeding 100 degrees has been already noted. The lowest temperatures of the month were registered on twenty days, viz., 1st to 7th, 9th to 12th, 14th, 17th to 21st, 23rd, 27th, and 28th, most widely between the 2nd and 5th, and on the 10th and 11th. The extreme minimum for the month was 34·0 degrees at Belfast on the 5th. The extreme range during February, therefore, amounted to 81·7 degrees over all stations.

Precipitation.—During February rain fell in greater or less quantity over almost the whole Union. The areas suffering from absolute drought throughout the month were a narrow strip along the west coast between Luderitzbucht and St. Helena Bay, a few small patches in the south-west of the Cape Province, and one or two similar areas in the north and north-west of the Transvaal. The rain was extremely patchy and irregular in distribution. Thus in the northern Transvaal, in the neighbourhood of Pietersburg, a small patch received half an inch or less. From this neighbourhood the rainfall increased in all directions to between 1 inch and 2 inches in the north and west, over 4½ inches in the south-west and south-east, and to over 10 inches in parts of the east of the Zoutpansberg, whence it decreased to 2 and 3 inches in the north-east of the low veld. In the Free State, the smallest totals (1 inch to 2 inches) occurred mainly over two irregular areas of considerable extent, one in the north-east and the other in the middle of the Province, the two being connected by a narrow strip running in a general north-east to south-west direction. From these areas the totals for the month increased to over 3 inches in the north-west, west, south-west, and east, but exceeding 7 inches in a narrow strip in the south and south-east. In Natal, the major portion of the centre, south, and extreme north had between 3 and 4½ inches, rising to over 7 inches in the south-west and middle north, whence the totals decreased to 2 and 3 inches in the north of Zululand. In the neighbourhood of St. Lucia Point the maximum amount of over 20 inches occurred in a narrow strip along the coast. Over the Cape Province, precipitation increased generally from less than half an inch in the west and south-west to between 4½ and 7 inches in parts of Kaffraria and the north-east, and to between 2 and 4 inches over the northern border and Gordonia. In South-West Africa, no rainfall occurred along a narrow belt on the west coast from the neighbourhood of Luderitz Bay southwards, continuous with that on the Namaqualand coast. Over the rest of the territory the rainfall increased towards the north and east, from the southern border and the coast in more or less parallel bands, to over 7 inches in the north-east, when Grootfontein had a total of 7·04 inches At Voigtgrund, near the centre of the southern half of the territory, a total of 9·33 inches was recorded. Compared with the normal values, a fairly broad band of excess precipitation is found to stretch from the north-east of the Transvaal, along the eastern boundary, through the east of Swaziland, into Zululand, where it extends to the coast, sending a narrow tongue along the northern coast of Natal to terminate some distance north of Durban. From Zululand the band of excess rainfall narrows at first considerably, but expands considerably in the south-east so as to include Basutoland ; it then includes the greater part of the south of the Free State, but narrows on approaching the western boundary of that Province, and trends in a general west-north-westerly direction to the border of South-West Africa, covering the greater part of Gordonia. In the south-west of the Orange Free State the band of surplus rainfall bifurcates, the second branch—after sending a spur south-west towards Steytlerville—proceeding in a general north-west direction beyond Kuruman and Prieska, whence it turns first south and then west, expanding so as to embrace a large portion of the northern Karroo, then turning in a general north-north-west direction, with continuously decreasing width terminates on the Orange River, in Namaqualand. From the north-east of Swaziland a tongue stretches eastward over the high veld proper to the west of Middelburg, almost meeting another area of excess of irregular shape, which includes a small portion of the west and a larger part of the south-west of the Transvaal. The largest percentage excess occurred in the south-west of the northern Karroo, in the neighbourhood of Sutherland, where the totals were more than three times the usual quantities. Those portions of the Union having a subnormal rainfall consisted, in the Cape Province, of the west coast, the south-west, including the Peninsula, the south coast, southern Karroo, the middle of the central Karroo, the south-east, north-east, the greater part of Kaffraria, little Bushmanland, part of the northern border, the west of the northern Karroo, and Bechuanaland ; in Natal, a strip of moderate width in the south-east, passing from the coast a short distance inland near Durban, and extending to within a short distance of Hlabisa ; in the Orange Free State, a small area in the south-west, the greater part of the centre, north-west, north, and north-east ; in the Transvaal, a limited portion of the south-west, south, and south-east, also the centre, north-west, north, and extreme north-east. The deficits were greatest (50 per cent or over) in the west, south, and south-east, as well as the north-west of the northern border, in the Cape Province ; the greater part of the Transvaal, including the centre, north, north-east, south, and south-east, as well as part of the north-east of the Free State. In South-West Africa, there was an alternation of *minus* and *plus* areas ; a comparatively narrow area of deficient rainfall in the more south-westerly, southerly, and south-easterly districts ; a much larger section with excess rainfall, extending from Kalkfontein to the latitude of Maltahöhe and Voigtsgrund ; a second area of subnormal precipitation between Haribes and Duesternbrook ; a third but much smaller area of similarly defective rainfall in the neighbourhood of Waterberg and Okasangumingo, with indications of a further shortage at Tsumeb in the north. Elsewhere the rainfall was in excess of the average. The actual deficits varied between 0·03 inch (or 4 per cent.) at Gabis and 0·87 inch (or 24 per cent.) at Duesternbrook ; and the excesses from 0·49 inch (or 490 per cent.) at Swakopmund to 6·51 inches (or 231 per cent.) at Voigtsgrund. During this month there was a marked absence of severe *thunderstorms*, and reports of even light storms of this nature were infrequent, while a few dry storms were reported from the Transvaal. These storms were seldom of the usual convectional type, at least in the Transvaal, judging by the time of their occurrence, and were probably due in a large measure to the importation of masses of air from different sources, and in other cases to excessive cooling of the upper layers. Thunderstorms were reported as occurring on the 6th, 7th, 9th, 20th, 22nd, 23rd, 27th, and 28th; they were most numerous in the south of the Cape Province. Among the more severe in its attendant results was that at Bethany (District Edenburg), in the Free State, between 7.30 p.m. and 8.15 p.m. After the storm proper, a "hurricane" from the south-east passed in a zigzag line over the station, uprooting trees and carrying away several small roofs and one large one of an out-building; parts of this latter were carried 150 yards, and another part of a roof was carried 2 miles away; a beam, 3 inches by 9 inches and 20 feet long, was carried to the neighbouring yard, where it battered the wall of an outhouse. One woman and a girl were slightly hurt by falling bricks. During a heavy thunderstorm on the 7th, at De Rust (Division Oudtshoorn), a coloured man was killed by lightning and a house set on fire. At Claremont (District Harrismith) a native's cow was struck by lightning on the 27th. Similarly, *hailstorms* were comparatively few, and particularly in the Transvaal and north of the Free State caused but little damage. These storms were noted on the 6th at Groot Vallei (Cradock), Dalkeith (Molteno), and Roode Hoogte (Middelburg); on the 7th at De Rust (Oudtshoorn); on the 8th at Xumeni (Natal); on the 9th at Lindley (Orange Free State); on the 16th at Karroo Dam (Kroonstad); on the 24th at Paardekraal (District Bloemfontein); on the 25th at Hamelfontein (District Edenburg), Karroo Dam (Kroonstad); on the 26th at Boschfontein (District Rustenburg), Roseleigh (Klip River, Natal); on the 27th at Vlieger Farm (Division Potchefstroom), Mount Stephen (District Thaba 'Nchu), Whinburn (Bethlehem), Maccauw Vlei (Heilbron), and Commando Drift (Hoopstad); on the 28th at Airlie (Harrismith) and Wepener (Orange Free State). In the Transvaal, the most destructive were those at Boschfontein on the 26th, when considerable damage was caused to tobacco and citrus in three minutes, and at Vlieger Farm on the 27th, when mangoes were badly damaged. In the Free State, a few such storms passed over the neighbourhood of Eerste Zending (District Harrismith), badly battering the mealies, while in the Cape Province those on the 6th at Groot Vallei and Dalkeith severely damaged mealies, gardens, and green fodder. Falls of between 1 inch and 2 inches in an hour were fairly common in the Free State, as at Populiersbank, in the Bethlehem District of the Free State, where 1·82 inch were recorded in one hour on the 1st. At Glückstadt (Vryheid), in Natal, 2·20 inches occurred in an equal interval on the 9th, the total for the twenty-four hours being 4·52 inches. Totals of 2–4 inches in the twenty-four hours were also recorded at a large number of stations in the Orange Free State, more particularly on the 13th; whilst in Natal amounts varying between 2 and over 5 inches were recorded at a large number of stations, mostly on the 9th. Amongst these larger totals may be mentioned 4·00 inches at Petrusburg (District Lindley), in the Orange Free State, on the 13th; 5·14 inches on the 10th at Woodford; 5·36 inches on the 9th at Grosvenor Downs (Klip River); and 6·54 inches on the 9th at Ngome, all in Natal. At Cape St. Lucia the unusually large amount of 15·23 inches, falling between 8.45 p.m. on the 9th and 5.30 a.m. on the 11th, caused considerable damage to roads; the total for the month was 22·36 inches on twelve days. In the Transvaal, the largest amount was 9·64 inches, falling between 8.30 p.m. on the 16th and 4 a.m. on the 17th at Kamhlabane Ranch (Division Barberton), a rate of 1·29 inch per hour for seven and a half hours. In the Cape Province, a considerable amount of damage was caused in parts of the west-central Karroo, the east of the northern Karroo, and the south-east, as the result of heavy downpours. Thus at Upper Matjesvlei (Division Beaufort West) a fall of 3·75 inches in two hours on the 19th burst a big dam of seventy years' standing; on the same day a heavy rain, totalling 1·83 inch in three hours, washed away fences and big sluits in the municipality of Colesberg. As the result of a fall of 3 inches on the 23rd about a mile from Ovendale (Division Willowmore), a portion of the railway was washed away, 102 goats drowned, and damage done to vermin-proof fencing. On the following day the river at Riversdale (Division Cathcart) came down, and washed away a motor-car which had stuck fast at Tylden Drift. *Fogs* and *mists* were of frequent occurrence along the south coast. The accumulated rainfall for the first two months of the year was mostly below the average. The deficits were small, between half an inch and 1 inch in the extreme south-east, parts of the south-west, north-west, and east. Generally, however, the shortages were between 1 inch and 2 inches over the west and centre, increasing to 5 inches in the middle of the east of the high veld. The shortages varied from 0·31 inch or 2 per cent. at Pilgrims Rest to 5·11 inches or 55 per cent. at Ermelo. Any excesses were confined to small patches in the north, north-east, east, and south-west. These surplus amounts lay between 0·81 inch or 10 per cent. at Potchefstroom and 3·83 inches or 21 per cent. at Pigeonhole, in the Zoutpansberg. In the Orange Free State, the rainfall for the two months was less than usual, except in the south, where Bethulie showed an excess of 1·41 inch, or 24 per cent. more than normal. The *minus* quantities lay between 1·10 inch or 19 per cent. at Boshof and 3·95 inches or 42 per cent. at Harrismith. Natal is somewhat exceptional, as the majority of the stations in this Province show an excess of rainfall for this period. Deficits occurred over portions of the centre, south, and the coast north of Durban; these were generally less than an inch, varying from 0·26 inch or 3 per cent. at Weenen and 0·97 inch or 10 per cent. at Stanger. The surplus amounts were larger, mostly between 1 inch and 2 inches, being 1·35 inch or 13 per cent. at Estcourt and 4·15 inches or 37 per cent. at Empangeni. In the Cape Province, excess rainfall for January and February jointly was confined to the Namaqualand plateau, the south-west, south, and part of the north-east of the northern Karroo, portions of the northern border, of the north-east, and of the Kaffrarian coast. These surplus amounts were mostly less than 1 inch, but varied from 0·19 inch or 24 per cent. at Calvinia to 2·24 inches or 36 per cent. at Aliwal North. Over the greater part of this Province precipitation was subnormal, mostly by under an inch, the deficits, however, exceeding 1 inch at some stations on the innermost plateau and increasing further to 1 inch to 4 inches in the east. The *minus* quantities ranged from 0·02 inch or 2 per cent. at Piquetberg to 4·13 inches or 60 per cent. at Bedford. In South-West Africa, the alternation of *plus* and *minus* areas is evident also in the gross totals for these months. Thus on the south-west coast and in the extreme south there is a small area of deficient rainfall; over the rest of the southern half and the north and west of the northern half an excess occurs; while the central portion of the northern half suffered from a shortage. The deficits lay between 0·01 inch or 100 per cent. at Luderitz Bay and 3·04 inches or 32 per cent. at Waterberg in the north, but were mostly less than an inch. The surplus quantities were generally between 1 inch and 2 inches, increasing to 4 inches or more at a few stations. These excesses lay between 0·06 inch or 7 per cent. at Gabis in the south and 8·08 inches or 216 per cent. at Voigtsgrund in the north-central portion of the southern half of the Territory. The gross totals for the eight months, commencing 1st July, 1924, were mostly subnormal over the Cape Province, but above the average in the greater part of the Free State, in Natal, and in the north, east, south-west, and south-east of the Transvaal; while in South-West Africa they were mostly greater than usual over the southern half, and the north and west of the northern half of the territory. In the Transvaal, subnormal quantities prevailed over the south, centre, west, and the east of the high veld. The deficits varied between 0·16 inch or less than 1 per cent. at Belfast and 5·69 inches or 22 per cent.

at Ermelo. The surplus quantities were commonly between 2 and 4 inches but ranging from 0·44 inch or 2 per cent. at Wakkerstroom and 10·56 inches or 28 per cent. at Pigeonhole; the almost equal excess of 10·23 inches at Komatipoort, however, constituted 50 per cent. of the average for the same period. In the Free State, a slight deficiency in the rainfall was experienced in the north-east, where Harrismith, with a total of 22·87 inches for these months, showed a *minus* quantity of 0·61 inch, or about 3 per cent. The excesses elsewhere varied between 0·21 inch or 1 per cent. at Bloemfontein and 6·48 inches or 31 per cent. at Ladybrand. Excess quantities were shown in all portions of Natal, ranging from 0·86 inch or 3 per cent. at Durban to 10·87 inches or 49 per cent. at Ladysmith. The cumulative amounts for the period under consideration were in excess of normal over limited areas in the northern Karroo, northern border, Bechuanaland, also in the north-east and the extreme east of Kaffraria. The *plus* amounts lay between 0·23 inch or 6 per cent. at Fraserburg and 7·23 inches or 35 per cent. at Kokstad. The rainfall was most deficient during the eight months in the south-east, where the *minus* quantities varied between 2 and 9 inches, but were also fairly large (2–4 inches) in the south-west, along the south coast, and over the central Karroo; over the west and the more northerly portions of the interior there was a further decrease to between 1 inch and 2 inches and even less. The shortages varied from 0·07 inch or less than 1 per cent. at Driefontein, in the French Hoek area, in the south-west, to 9·09 inches or 48 per cent. at Grahamstown in the south-east. An alternation of *plus* and *minus* areas, similar to what obtained during the two first months of 1925, was evident in South-West Africa in the relative distribution for the longer period. The smallest deficit was 0·26 inch or 5 per cent. at Haribes and the largest 3·37 inches or 23 per cent. at Waterberg; while the surplus amounts lay between 0·20 inch or 41 per cent. at Swakopmund and 7·40 inches or 149 per cent. at Voigtsgrund.

State of Country.—Uniformly high although not excessive temperatures, together with sporadic, subnormal rains spread over a large number of days, and drying winds, were conditions that proved unfavourable and even detrimental to later sown crops as well as to the veld in some districts of the *Transvaal.* These droughty conditions were most severely felt in the Piet Retief, Standerton, Ermelo, Carolina, Bethal, Middelburg, Waterberg, Pietersburg Districts, parts of the Zoutpansberg, and the north and north-east of the Wakkerstroom Division. In parts of the Bethal and Middelburg Districts about half the mealie crop was stated to be lost through drought; in portions of Standerton everything was said to be burnt up; in other Divisions, e.g. Ermelo, crops were wilting; whilst in other sections of the country, such as parts of the Waterberg, the crops were in a precarious state and in some instances stated to be drought-stricken beyond recovery; in Ermelo gardens were suffering severely from lack of water. In some instances cotton was doing much better than maize, as in parts of the Zoutpansberg. Much more favourable reports emanated from the Witwatersrand, Pretoria, Lichtenburg, Potchefstroom, Bloemhof, Rustenburg, and Barberton Districts, where crops were generally stated to be in good condition, large returns being anticipated in some areas. In the Rustenburg Division mealies, cotton, and tobacco were looking splendid, and cotton-picking had been started about the middle of the month on some farms. Insect pests in this Division were few and by no means serious, but grubs were active in maize in Standerton. Good rains were urgently needed in practically all sections of the Province. From Pigeonhole, in the Zoutpansberg, however, complaint was made of too much continuous rain. Hailstorms were few, mostly light, generally caused but little damage. A severe storm of this nature, however, occurred at Vlieger Farm (Division Potchefstroom) on the

27th, causing much damage to mangoes. Similarly a fall of hail, lasting only three minutes, damaged tobacco and citrus at Boschfontein No. 193, in the Rustenburg Division. Stock generally were in good condition. Blue-tongue, however, was prevalent in Bloemhof District, and horse-sickness in Carolina. Notwithstanding a shortage in the usually plenteous rains of this month in Swaziland, good yields of cotton and maize were expected in the Hlatikulu District.

Orange Free State.—Over this Province the rains were very partial and less than usual, except in two comparatively small areas in the north and north-east and a much larger area in the south and south-east with a prolongation to the centre of the western border. The lack of rain was severely felt in parts of the Bloemfontein, Heilbron, and Thaba 'Nchu Districts, whence several reports of losses of mealies and kaffir corn were received. A spell of dry weather between the 11th and 28th in a portion of the Frankfort District caused crops to be burnt up. Rust had made its appearance on wheat in part of the Bethlehem District, and had caused considerable loss of the same crop in Ladybrand, the return in some cases being only 25 per cent. of normal. Smut was badly affecting kaffir corn and mealies in portions of the Bethlehem District. A heavy crop of oats was harvested successfully in part of Bethlehem, while growing crops were promising well in parts of the Frankfort, Winburg, Lindley, Hoopstad, Ladybrand, and Thaba 'Nchu Districts, record crops being anticipated in many instances. Grass was generally plentiful, although in Vrede District the veld was in poor condition and the mealie crop there in urgent need of good rains. Crops were generally free from insect pests. There was very little damage from hail, although on the 9th the crops on three farms in the Lindley District were damaged by a storm of this nature, and mealies were badly battered in the Harrismith District by several storms. No damage to crops was reported as the result of the hailstorm that passed over Mount Stephen (District Thaba 'Nchu) on the 27th. Stock generally were in good condition, except in the Vrede District, where both cattle and sheep were stated to be poor. A few cases of horse-sickness occurred in the Frankfort District; there was a general outbreak of blue-tongue in a light form amongst sheep in Fauresmith, and a few cases in Bethlehem, Kroonstad, and Hoopstad, in the last of which blindness was also stated to be affecting the flocks. Steady soaking rains were required to moisten the sub-soil in those areas suffering from deficient rainfall.

Natal.—Good rains at the beginning of the month, heavy falls on the 9th and 10th, and fairly good rains, tending to become more or less local, during the remainder of the month, with a hot, moist atmosphere and absence of wind had a good effect on all growing crops and veld, notwithstanding a shortage in the extreme west, the east, centre, and the south-east. An infestation of bagworm in wattles over wide areas was reported from Greytown. Stock generally were in excellent condition, although a few cases of horse-sickness were reported from Nottingham Road.

Cape Province.—Hot oppressive weather, with excessive temperatures on several days at the beginning and end of the month, particularly in the southern and western parts, with an absence of general rains, caused a continuance or recrudescence of drought, particularly in the south, south-east, a considerable portion of the north-east, the northern border, and northern Karroo, the greater part of Kaffraria, as well as extremely dry conditions in the south-west and the western littoral. The drought was being most severly felt in the Bathurst, Bedford, Alexandria, Willowmore, Aberdeen, Riversdale, and Kenhardt Divisions. In the two first-named Divisions water was scarce, the mealie and fruit crop (except grapes) practically a failure, whilst in portions of Tarkastad the veld was black and very short. Even in the usually well-watered Division of George the crops were not as good as they might have been, mealies were mostly dried up, and apples very small. In Wellington vines and late fruits had suffered considerably, and it was reported from Klaver (Division Van Rhynsdorp) that the intense heat from the 20th to 27th had burnt up crops, more especially those with comparatively delicate foliage, such as pumpkins, grapes had suffered, fowls, pigs, calves, and even fish in pools, had died from the heat. On the works there a few natives fainted during the hottest part of the day. In Graaff-Reinet the drought was only partly broken, whilst at Lovedale (District Victoria East) the subnormal rains that fell were too intense to penetrate into the soil. In most of the districts of the Transkei the rainfall was insufficient, and fears were entertained for the coming winter. In Mount Currie, although the veld was wilted and very dry for the time of year, the maize crop had improved considerably as the result of drier weather, hay-making was being carried on, as well as ploughing and sowing for winter-feed. In the Division of De Aar the rains were very patchy, some areas receiving a fairly satisfactory amount and others practically none. In Queenstown Division the showers were too light, and being distributed over twelve days produced but little effect on the veld, which was not in as good a condition as it ought to be at this period of the year. Although the amounts recorded in Mount Fletcher and Maclear were insufficient to bring on the veld sufficiently for winter grazing, crops were looking well in the latter Division. In Stutterheim the rains arrived just in time to save the bean and late mealie crop, but further soaking rains were required to produce satisfactory results ; in portions of the same district lands not broken up early in the season were too dry to plough. Grazing had improved to a wonderful extent in Barkly West. In Namaqualand the drought was broken by the first satisfactory rains since June, 1923. In Mafeking winter-feed for cattle was assured, owing to showers having kept veld in good condition. Rainfall was practically general in Aliwal North, Albert, Steynsburg, Maraisburg, and Molteno, so that veld and crops were looking very well and prospects for the coming winter excellent ; in fact, a record mealie crop was anticipated in parts of Steynsburg. In parts of Hanover the wheat was a failure owing to November frost. In Albert there was an excellent wheat crop, but mealies were not too promising ; on some farms in Molteno grain was very fair, but poor in most cases owing to drought. Notwithstanding the paucity of rainfall in Kuruman during December and January, when practically everything planted died, there was some prospect of a few mealies in the district. As usually happens during a droughty period, thunderstorms of considerable severity occurred in various parts of the Province, some being accompanied by rainfall of sufficient quantity and intensity as to bring rivers down in flood ; such storms were reported as occurring in parts of Beaufort West and Colesberg Divisions on the 19th ; in Calvinia on the 22nd ; in Beaufort West, Graaff-Reinet, Willowmore, and Calvinia on the 23rd ; in Cathcart on the 24th ; and in Molteno Division on the 28th. In some instances the thunderstorms were accompanied by hail, causing damage to crops and gardens ; this meteor would appear to have been confined to the early part of the month, being reported from Roodehoogte (Division Middelburg), Groot Vallei (Division Cradock), Dalkeith (Division Molteno) on the 6th ; and from Rooi River (Uniondale) and De Rust (Oudtshoorn) on the 7th. Mists were of frequent occurrence along the south coast. Good, soaking rains were required practically everywhere to moisten the sub-soil, and heavy showers to fill dams, etc., would satisfactorily settle the problem of watering stock during winter. In Basutoland, crops were in splendid condition as the result of very good rains ; several severe thunderstorms occurred there during the month. In Bechuanaland, February proved a very disappointing month, showers being very local, so that both crops and veld were very dry and in urgent need of rain. Stock generally were in fair to good condition, even in the Stutterheim Division considering the dry period passed through. In Hanover stock were improving, but were falling off in condition in the Bathurst Division. Blue-tongue was severe in some sections of Prieska, but, although prevalent, was not severe in Mount Currie. Horse-sickness was also prevalent in Mount Currie, and a number of animals were dying of this disease in Bechuanaland.

State of Rivers, Water-Supply, Floods, etc. —Neither in the Transvaal nor in the Orange Free State were there any reports of floods in the rivers, although falls of 2–4 inches in the twenty-four hours or less were of common occurrence during the month over the latter Province. The largest total in one day in the Free State was 4·00 inches at Petrusburg (Division Lindley) on the 15th; and in the Transvaal, 9·64 inches, between 8.30 p.m. on the 15th and 4 a.m. on the 16th, that is, in seven and a half hours, giving a rate of 1·29 inch per hour. Among short-period falls may be noted 1·82 inch on 1st at Populiersbank (District Bethlehem) and 1·20 inch in thirty minutes at Paardekraal (District Bloemfontein) on the 24th. In Natal, the outstanding feature was the fall of 15·23 inches between 8.45 p.m. on the 9th and 5.30 a.m. on the 11th, an average rate of 0·47 inch per hour during the thirty-two hours of its duration; this large amount caused considerable damage to roads. Falls of 2–6 inches in twenty-four hours or less were common on the 9th and 10th, the maximum total being 6·54 inches in twenty-four hours on the 9th at Ngomi (Zululand). The Klip River overflowed its banks on the 20th at Quaggasdrift, where 2·35 inches fell on that date in seven and three-quarter hours, whilst a total of 4·86 inches occurred at Grosvenor Downs (Division Klip River) in fourteen and a half hours on the same date. At Bridesford (Division Newcastle) the river there also overflowed its banks on the 1st, when 2·50 inches were recorded at that station. Among other noteworthy falls may be mentioned 5·14 inches in nine and a half hours at Woodford on the 10th and 4·78 inches in seven hours fifty-five minutes at Wyford on the 20th. From Hillcrest it was reported that the River Umklalayana was carrying more water than usual on the 9th, but was not in flood, after a moderate thunderstorm producing 2·61 inches. Heavy falls in short periods included 2·20 inches within one hour at Glückstadt (Division Vryheid) on the 9th, the total for the twenty-four hours being 4·52 inches. In the Cape Province, there were no excessive floods at Sydney-on-Vaal during February, but the river maintained a high level with little variation throughout the month. At the beginning of the month there was no water running in the river at Ventnor (Division Tarka). On the 19th a very heavy shower, amounting to 3·75 inches in two hours, at Upper Matjesvlei (Division Beaufort West) burst a large dam of seventy years' standing. On the same date a much smaller and less intense fall of 1·83 inch in three hours caused a considerable amount of damage in the municipality of Colesberg, washing away big sluits and fences. A heavy shower in the mountains on the 23rd brought down the river at Stoltz Rivier and raised the dam 4 feet. On the same date a steady rain, amounting to 1·01 inch in one hour, fell at Ovendale, in the Division of Willowmore; about a mile away a much heavier fall, stated to amount to 3 inches, washed away a portion of the railway, damaged fencing, and drowned 102 goats. On the following day, the 24th, the Great Fish River came down suddenly, very high at Riversdale (Division Cathcart), and washed down a motor-car which had stuck in the Tylden Drift. The Hol River, a tributary joining the Oliphants River about thirty-five miles below Klaver (Division Van Rhynsdorp), also came down on the 24th; this flood was in all probability due, in part at least, to rain which fell continuously at Groot Toien (Division Calvinia) near its source for about four hours on the afternoon of the 22nd, while heavy showers occurred along the banks of the Hantams River; the next day further heavy showers fell about two to three miles to the south and west of this station, flooding the river at this portion of its course. On the 27th the Doorn River, another tributary, which joins the Oliphants about eight miles above Klaver, also came down. In Bechuanaland, the Metla and Mahalapye Rivers had not begun to run yet, being unusually late. At Bedford and Port Alfred water was very scarce, and evidently the supply at Queenstown was not in too satisfactory a condition. It is evident that over large areas of the Union matters were in a very critical state at the end of the month; and that unless good rains fell in March to bring on crops, refill dams, pans, and vleis, and renew municipal water-supplies, both town and country would be compelled to face another dry winter season with a serious water shortage and all its attendant difficulties, trials, and misery.

OBSERVERS' NOTES FOR FEBRUARY, 1925.

TRANSVAAL.

Carolina.—This month has been exceptionally dry and warm; rain is badly needed, but seems far away. No damage may so far have been caused to the crops, but failing good rains soon most farmers will suffer. Horse-sickness has been very prevalent. Rainfall: 2·88 inches on seven days.—G. F. Mynhardt.

Kopje Alleen No. 1052 (*Waterberg*).—Although the maximum temperature only reached 90 degrees and over on four days, it only fell below 80 degrees twice. With a mean maximum of 86·7 degrees and scarcity of rain the month was distinctly hot. Distant lightning, mostly in the evening, was seen on ten occasions, but only once did a short thunderstorm reach here. After the 10th only three showers fell, amounting in all to 0·36 inch. The rainfall for the month (1·96 inch on eight days) was 1·08 inch below the mean for seven years, while the amounts for July to February, October to February, and January to February were respectively 4·35 inches, 4·32 inches, and 3·48 inches below normal. The position of the maize crop is now very precarious, and if good rains do not fall soon the crop will be an almost total failure here and on neighbouring farms. Rainfall: 1·96 inch on eight days.—J. Lyall Soutter.

Mosdene (*Waterberg*).—A hot and dry month following the dry spell during the latter half of January has seriously affected the late-planted mealies, and will considerably reduce the yield per acre. Mean maximum temperature, 85·1 degrees, as against a February average of 82·8 degrees. Rainfall for month: 2·06 inches on five days, as against an average for the month of 2·59 inches. Total rainfall since 1st July last: 20·66 inches.—Ernest E. Galpin.

Nooitgedacht (*Waterberg*).—The heavy rainfall on the 9th (2·20 inch) was very local, and consequently rain is much needed, although conditions are not so bad as those farther east. The temperature was higher (4 degrees) than that of February last year, which was a month of heavy rain. Cattle looking well, also the earlier-planted crops; those planted later want rain. No locusts. Rainfall: 3·74 inches on ten days.—G. Gordon Brown.

Pomona Estates (*Pretoria*).—Nothing special during the month, except heavy thunderstorm with terrific lightning on 20th at 6.30 p.m. Crops doing remarkably well. Rainfall: 3·36 inches on ten days.—E. A. Clark.

Arbury (*Rustenburg*).—February has been rather a hot month. The small showers of rain which fell soon evaporated. All crops doing well. Rainfall: 2·94 inches on eleven days.—G- F. Mills.

Groeneboom No. 444 (*Rustenburg*).—Precipitation sufficient and well divided. Crops looking fine, also cattle and veld. Big cotton and mealie crops anticipated. Rainfall: 3·64 inches on ten days.—F. N. van Nouhuys.

Krugersdorp.—February has been a month of almost ideal climatic conditions, and both crops and veld are in excellent condition. Mean temperature, 67 degrees, or 1·4 degree below the average for the past fifteen years. Rainfall: 4·89 inches on fourteen days, against an average of 5·61 inches for the past twenty-two years.—H. Sharp.

Pretoria (*West End Plantation*).—The rainfall for the month amounted to 2·24 inches on nine days. On the afternoon of the 7th 1·11 inch was registered, the lightning being very severe. During the early part of the month one mule died from horse-sickness at the western town lands. Rainfall: 2·24 inches on nine days.—W. H. Foster.

Bralbin (*Rustenburg*).—The rainfall (3·69 inches on nine days) was below normal for the month. What hail occurred was very slight, and did no damage of any importance. Thunder and lightning frequent, and several dry storms were experienced. Low clouds nearly every morning, and heavy dew. All crops looking well. Cotton, mealies, and tobacco very fine. Insect pests are few and not serious. Cotton-picking started on some farms about the middle of the month. Mean maximum temperature, 86·1 degrees; highest maximum temperature, 90·0 degrees on 16th; mean minimum temperature, 61·5 degrees; lowest minimum temperature, 56·0 degrees on 26th. Rainfall: 3·69 inches on nine days.—R. C. S. McPherson.

Barberton.—Good rains fell this month, and a notable feature was the comparative scarcity of thunder and lightning. Many of the showers were very local. Rainfall: 4·49 inches on ten days.—Walter Grubb.

Strathmore (*Klerksdorp*).—A favourable month for the district. Rainfall: 4·13 inches on eight days.—Chas. Scott.

Pietersburg.—Meagre rainfall. Country beginning to suffer. Rainfall: 0·70 inch on four days.—W. J. Frankleyne.

Potchefstroom (*School of Agriculture*).—The month was characterized by medium to warm temperatures. The first part of the month was dry, and a rainy period, beginning on the 9th, saved crops from serious damage. Rainfall: 4·51 inches on thirteen days.—D. Moses.

Ermelo.—Rain is badly needed in town and vicinity. Rainfall: 1·35 inch on six days.—J. Dean.

Bloemhof.—Hardly any locusts noticeable. Stock in good condition. No horse-sickness so far. Crops good. Rainfall: 3·12 inches on seven days.—C. J. van Tonder.

Pigeonhole–New Agatha (*Zoutpansberg*).—Too much continued rain. Rainfall: 10·99 inches on seventeen days.—J. McCallum.

Myrthley (*Standerton*).—Light showers at intervals. Crops suffering from drought and hot weather. Grub active in maize crops. Rainfall: 2·10 inches on eight days.—J. L. Ellis.

Lichtenburg.—Fair amount of rain. Crops about town and district very good. Rainfall: 2·96 inches on seven days.—H. J. Swart.

Gemboksfontein (*Middelburg*).—Everything is very dry, and rain is badly needed for the mealie crops, grazing, etc. Rainfall: 1·27 inch on six days.—L. C. Skead.

Sabie.—A noticeable feature during the month has been the dull days, the dispersion of all clouds after sunset, followed by an accumulation about midnight leading to a discharge in the early hours of the morning. Rainfall: 9·28 inches on thirteen days.—W. F. Easton.

Rietvlei No. 102 (*Ermelo*).—Rather a hot, dry month, although we have nothing to complain of as far as rain is concerned compared with other places in the district. Ermelo town exceedingly dry. Gardens dying off for want of rain. Rainfall: 4·36 inches on eleven days.—P. J. Steenkamp.

Wakkerstroom.—Although rain fell on no fewer than fourteen days, the total (2·95 inches) is disappointingly small. It has also been somewhat patchy, the northern and north-eastern portions of this district not being so fortunate as the south and south-west. Farmers inform me that rain is badly wanted, although present conditions are favourable for mowing. Rainfall: 2·95 inches on fourteen days.—J. Cilliers.

Kamhlabane Ranch (*Barberton*).—16th February, 9·64 inches of rain fell from 8.30 p.m. to 4 a.m. Rainfall: 18·27 inches on ten days.—H. B. Trollip.

Dieplaagte (*Bethal*).—Mealie crops suffering from dry weather. Rainfall: 2·56 inches on nine days.—J. Smpelisky.

Vlakspruit (*Bethal*).—Half the crops have been lost through the drought. Rainfall: 2·38 inches on five days.—P. T. N. Storm.

Schoonheid (*Bloemhof*).—Blue-tongue is prevalent. Great losses caused by Us-worm. Rainfall: 0·78 inch on three days.—C. M. Gouws.

Makauwskop (*Bloemhof*).—10th February, 3·12 inches of rain fell from 12 noon to 2.45 p.m. Rainfall: 4·81 inches on twelve days.—W. Hallatt.

Mooivlei (*Ermelo*).—Crops drooping badly. Veld looking very dry. Rainfall: 1·19 inch on three days.—G. T. Beveridge.

Reston (*Middelburg*).—7th February, terribly dry, half of the crops are lost. Rainfall: 2·02 inches on two days.—A. G. Purves.

Zwaartfontein (*Middelburg*).—Grazing good, but crops badly in need of rain. Rainfall: 1·77 inch on three days.—C. S. Hodgson.

Fountainville (*Middelburg*).—Mealie crop suffering from drought. Rainfall: 1·18 inch on three days.—W. J. Engelbrecht.

Bergplaats (*Piet Retief*).—Crops have suffered greatly from witch-weed and drought. Rainfall: 1·82 inch on five days.—F. Gillespie.

Vlieger Farm (*Potchefstroom*).—27th, terrific hail in plain, much damage done to mangoes (apparently local). Rainfall: 6·13 inches on ten days.—W. Haggett.

Elandsfontein (*Potchefstroom*).—Crops continue to look promising. Slight damage may have been caused by drought. This is a year of plenty. Rainfall: 3·51 inches on eight days.—P. Davidtz.

Doornkom (*Rustenburg*).—Crops are looking splendid. Rainfall: 3·37 inches on ten days.—G. J. Taylor.

Boschfontein (*Rustenburg*).—26th, hailstorm for three minutes from south-east; damage to tobacco and citrus crops. Rainfall: 7·13 inches on ten days.—J. B. Allen.

Aspley (*Standerton*).—Fearful drought, everything burned up. Rainfall: 2·78 inches on four days.—C. G. Thompson.

Mooigelegen (*Waterberg*).—*Cotton*, practically all bolls stripped by boll-worm. *Mealies* drought-stricken. Nuts drought-stricken beyond recovery, prematurely matured. Damage chiefly due to dry wind. Rainfall: 1·42 inch on two days.—A. V. Maddock.

Groot Geluk (*Zoutpansberg*).—Maize crop in this area is poor, yellow, and stunted. Cotton plants growing well, but too early to judge as to possible yield. Rainfall: 7·99 inches on eleven days.—T. H. Morgan.

SWAZILAND.

Hlatikulu.—For the month of February rain has not been too plentiful, yet apart from that the country is looking very well, and grass is at its best. Cotton and maize reports from the district are very promising, the farmers expecting a very good yield. Rainfall: 4·09 inches on fifteen days.—J. Pullen.

ORANGE FREE STATE.

Groenveli (*Frankfort*).—With the exception of a downpour on the 1st (1·99 inch), which was very local, the rainfall (3·29 inches on seven days) has been very small this month. Dry conditions prevailed at the close of the month. The weather comes up daily and looks promising, but passes over towards evening. Crops are fine and promising. Practically no grub in maize. Total absence of severe storms of hail. Isolated cases of horse-sickness have occurred. Rainfall: 3·29 inches on seven days.—B. Stollreither.

Bethany (*Edenburg*).—6th February, 7.30 p.m. to 8.15 p.m., after a severe thunderstorm a hurricane from south-east passed in a zigzag line over this station, uprooting trees and carrying away several small roofs and one large one of an outbuilding, parts of which were carried 150 yards, another part of a roof being carried 2 miles. One beam, 20 feet long (3 inches by 9 inches), was carried to the neighbouring yard, where it battered the wall of an outbuilding. A woman and a girl were slightly hurt by falling bricks. Rainfall: 7·60 inches on twelve days.—Rev. Carl Prozesky.

Kroonstad.—The outstanding feature of the month was the steady, soft rain from the 8th to 13th (inclusive), during which period the sky remained overcast practically continuously. Rainfall: 2·70 inches on eleven days.—A. C. Mason.

Lindley.—Crops good; veld in good order, and good winter-feed now assured. Cattle in excellent condition. No locusts seen in this district this season. On the 9th, hail fell on three farms in the district, causing damage to crops. Rainfall: 4·34 inches on eleven days.—W. Murphy.

Rugby (*Bethlehem*).—Heavy crop of oats successfully harvested. Kaffir corn and mealies badly affected by smut, and some rust in spring wheat. Grass plentiful, and all stock in good condition. Up to the present only a few cases of blue-tongue have occurred amongst sheep, and that not of a violent form, most animals recovering. Rainfall: 3·43 inches on nine days.—A. C. Glynn-Baker.

Myburgsfontein (*Bloemfontein*).—The month has been very hot and dry, lots of dust, heavy dews at night. Several reports of loss of mealies and kaffir corn, owing to drought. Rainfall: 2·74 inches on seven days.—J. MacDonell.

Beervlei (*Bloemfontein*).—Very hot during the day, cool in the evening. Rainfall: 3·46 inches on eight days.—F. J. van Zijl.

Slangfontein (*Fauresmith*).—Blue-tongue general outbreak in district. only in slight form. A few horses died of horse-sickness. Rainfall: 3·79 inches on ten days.—A. B. du Toit.

Jacobs Erf (*Frankfort*).—Dry days from 11th to 28th, which burnt up the crops. Crops are getting bad. Rainfall: 1·71 inch on six days.—P. J. Coetzee.

Claremont (*Harrismith*).—Storm and rain on 27th, 0·60 inch; one native and cow struck. Rainfall: 1·85 inch on six days.—M. N. Quin.

Eerste Zending (*Harrismith*).—There have been some very heavy storms during the month, doing considerable damage to the crops. A few hailstorms passed through the neighbourhood, battering the mealies badly; otherwise the month was good for crops. Rainfall: 4·56 inches on eleven days.—J. J. Ross.

Rietfontein (*Heilbron*).—We are very dry. Rain in abundance all around this summer. This is the lowest rainfall in February since 1921. Rainfall: 1·62 inch on nine days.—E. Wallace.

Karreepan (*Hoopstad*).—A heavy mealie crop is expected throughout this district, also a good deal of kaffir corn. Blue-tongue and blindness amongst sheep has started. Rainfall: 1·66 inch on three days.—J. Kelly.

Quaggavlakte (*Hoopstad*).—Crops of mealies will easily this year constitute a record one; the same applies to kaffir corn. Cattle are fat, sheep medium, with some cases of blue-tongue. There are one or two cases of horse-sickness. Crops are free of pests, and we have no losses from hail to report. Rainfall: 0·77 inch on nine days.—B. Polson.

Waterpan No. 263 (*Kroonstad*).—Blue-tongue on sheep, and horse-sickness. Rainfall: 2·23 inches on twelve days.—H. R. King.

Rafidim (*Ladybrand*).—Maize crops very promising. In many cases a record yield is expected. Cattle in splendid condition. Sheep finding it rather wet. Wheat greatly damaged by rust, in some cases yielding about 25 per cent. of normal. Rainfall: 2·06 inches on fifteen days.—R. A. Louw.

Magdalena (*Lindley*).—Crops are doing well, no grub, and a large crop of mealies expected in general. Rainfall: 3·70 inches on seven days.—C. E. Nel.

Kismet Estate (*Lindley District*).—Crops in this area very promising. Should all go well for the remainder of growing and ripening stage, then last season's yield may be easily eclipsed by at least ten bags to one (1,000 per cent. increase). Rainfall: 5·20 inches on eleven days.—W. F. Austin.

Bonafide (*Thaba 'Nchu*).—The rains for February were all nice soft rains, and did a lot of good to mealies, kaffir corn, and oats crop. Excellent results anticipated. Rainfall: 4·26 inches on ten days.—R. Morgan.

Elladale (*Thaba 'Nchu*).—Scattered showers have fallen in this vicinity, and parts of my mealie lands have had no rain yet. Naturally the crops are finished. Hailstorm passed (27th inst.) over Mount Stephen, filling the sluits; only touched the fringe of this farm. The slight showers fallen on this farm have done little good to growing crops, such as maize. Rainfall: 2·13 inches on five days.—J. Turner.

Roadside (*Vrede*).—Cattle and sheep in poor condition; grass poor, in need of rain. Mealie crop will suffer if no rain comes. Forage and teff plentiful. Rainfall: 1·55 inch on nine days.—W. Fry.

Paardekraal (*Winburg*).—Nice growing weather for teff and mealies; stock in excellent condition. Require steady soaking rain to moisten subsoil, which is still dry. Rainfall: 3·26 inches on twelve days.—G. S. Lome.

NATAL.

Nottingham Road.—Average February month. Stock healthy. A little horse-sickness reported. Rainfall: 3·98 inches on fifteen days.—Miss E. Smythe.

Mid-Illovo.—Good growing condition. Maize crop looking well. Highest maximum temperature, 93·0 degrees on 23rd; lowest minimum temperature, 57·0 degrees on 3rd. Rainfall for month: 5·64 inches on thirteen days, 3·12 inches and 1·03 inch having fallen on the 9th and 10th respectively.—Lt.-Col. J. W. V. Montgomery, C.M.G., D.S.O.

Paddock.—Although the mean maximum temperature is only 78·0 degrees, one feels it should be well over 80·0 degrees, but the weather has been extraordinary humid and generally very trying. A big storm at the beginning of the month cleared the air, but I feel it is working up for something in the way of rain shortly. Rainfall: 4·03 inches on twelve days.—G. Victor Merriman.

Paulpietersburg.—Rainfall below average and rather local. Rainfall: 2·68 inches on thirteen days.—Dr. Niel Lipscomb.

Ingwangwane (*Polela*).—The weather throughout the month has been calm, and on fine days usually hot and sultry during the early part of the day until the usual south-east breeze commenced, which often began from 1 p.m. to 3 p.m. Rainfall: 6·48 inches on thirteen days.—F. H. Houshold.

Emerald Dale (*Ixopo*).—Rainfall for month: 3·70 inches on eleven days. Most of the rain fell from the 9th to 20th, the earlier and later part of the month being somewhat dry. The heat and rains have had a beneficial effect on all growing crops, which are looking excellent. Rainfall: 3·70 inches on eleven days.—M. Anderson.

Greytown.—Conditions favourable for mealie crop. Heavy infestation of bag-worm in wattles over wide areas. Abundance of grass, and stock in good condition. Rainfall: 3·18 inches on ten days.—J. M. Handley.

Hillcrest.—Heat alternating with periods of mist and rain. One moderate thunderstorm on 9th (2·61 inches). River Umhlalayana carrying more water than usual; not in flood. Rainfall: 5·49 inches on nineteen days.—T. Dawson Clothier.

Dundee.—A good growing month, with a moist heat and general absence of wind. Mealie crops are promising well. Rainfall: 7·88 inches on ten days.—West Thorrold.

Ladysmith.—The rainfall for the month has been rather below the February average, but, following on the heavy rains during the latter part of January, has been sufficient to keep grass and crops going. Stock generally are in excellent condition. Rainfall: 3·04 inches on twelve days.—D. A. R. Leathern.

Maritzburg (*Mental Hospital*).—Crops and stock are looking well. Rainfall: 5·17 inches on ten days.—The Superintendent.

Cape St. Lucia.—Very heavy rains on the 9th and 10th, doing considerable damage to roads. 15·23 inches of rain fell from 8.45 p.m. on the 9th to 5.30 a.m. on the 11th. Rainfall: 22·36 inches on twelve days.—J. Murphy.

Kloofend (*Alexandra*).—Very poor for the month of February. Rainfall: 3·41 inches on twelve days.—H. Cruickshank.

Glückstadt (*Vryheid*).—As far as growth and fertility is concerned the month was an ideal one. The usual cold spells were absent, and very hot days were experienced throughout the month. An exceptionally heavy downpour occurred on the 9th, when 2·20 inches of rain were registered within one hour, the total for the day being 4·52 inches. Towards the end of the month the weather was very hot and dry. Rainfall: 6·25 inches on eleven days.—F. W. J. Schumann.

Rongpoort.—Very fine month in every way. Crops looking very well, and stock in good condition. All steady soaking rains, and ground thoroughly saturated. Rainfall: 3·96 inches on eleven days.—J. H. Bartholomew.

Cape Province.

Queenstown.—The latter half of the month was hot and dry. No steady rain, just showers. Good soaking rains wanted. Rainfall: 1·89 inch on twelve days.—H. Holley.

Stutterheim.—Rain just in time to save late mealie crop and bean crop. Veld improved much, but doubt if rain in time to ensure a good winter. Rainfall: 3·12 inches on fifteen days.—F. C. Bousfield.

Kimberley.—Latter part of month has been very sultry and dry. Sky has been overcast during day, but has cleared. Rainfall: 3·65 inches on seven days.—C. H. Dowler.

Prieska.—Maximum temperature low for district and time of year. Barometer rose towards the end of the month, a good sign of rain here in summer from north and north-west. Large number of rainy days and of local showers (many heavy over small area), much thunder and lightning, but no hail and few high winds. No general rain during month. Sunshine below normal. Large hatchings of locusts reported towards end of month. Horse-sickness and blue-tongue in sheep bad in certain areas. Rainfall: 1·70 inch on twelve days.—E. G. Bryant.

Louisvale (*Kenhardt*).—During the month 0·30 inch on three days fell on Louisvale, but much more fell in surrounding districts of Gordonia and Kenhardt, especially towards the end of the month, patchy however. Numerous outbreaks of locusts hatchings and the locust officers are busy. The maximum temperature for the month has kept high, the weather being hot and sultry.—Stuart N. Smith.

Liwandi-Addo (*Uitenhage*).—A bad month for heat. Sunday, the 22nd, was uncomfortable. For over three hours the temperature in the screen stood at between 115 degrees and 116 degrees. At this time it went up to 96 degrees indoors. It was almost impossible to sleep that night. 19th and 27th, with maximum over 105 degrees, 7th and 21st, with maximum over 100 degrees, carry with them no pleasant recollections. Rainfall: 0·53 inch on five days.—Major J. Kreft.

Klaver (*Van Rhynsdorp*).—Very hot spell from 20th to 27th; temperature ranging from 100·5 degrees to 112·8 degrees. Many reports of crops being burnt up, especially those with heavy foliage. Grapes have also suffered considerably. Reports of fowls, pigs, calves dying from heat, also fish in river pools. On our works a few natives fainted during the hottest part of the day. Hol River (thirty-five miles north of Klaver) came down on the 24th and Doorn River (eight miles south of Klaver) on the 27th, both tributaries of the Olifants River. Rainfall: 0·01 inch on one day.—W. M. Cameron.

Postmasburg (*Hay*).—Veld and stock in splendid condition. Rainfall: 1·53 inch on eleven days.—D. Brown.

Sydney-on-Vaal (*Barkly West*).—Normal month. One day's maximum temperature only was excessive, although, with moisture-laden atmosphere present practically throughout the whole month, the lower maximum temperatures were more oppressive than the usual higher temperatures of a dry February in this district. Veld grazing has improved marvellously. No excessive floods in river, but a high level has been maintained throughout the month with little variation. Rainfall: 2·67 inches on eleven days.—J. G. Richards.

Port Alfred.—Severe drought has continued throughout the month. Mealie and fruit crops practically destroyed. Water becoming scarce. Veld burnt up. Stock falling off in condition. Rainfall: 0·82 inch on five days.—W. H. Pascoe.

O'okiep.—Drought broken; first adequate rain since June, 1923. Rainfall: 1·47 inch on four days.—J. Burrows.

Aliwal North.—A month of high temperature. Fine soaking rains. Country looking grand. Farming prospects for the coming winter excellent. Rainfall: 5·63 inches on sixteen days, compared with 1·27 inch during February, 1924.—Alex. Alcock.

Kenhardt.—Rains have fallen in several parts of the district, but not sufficient to break drought. Greater part of district still extremely dry. Rainfall: 0·38 inch on five days.—R. Seydell.

Bedford.—Excessive heat, with an occasional cool day. A bad drought month. All fruit a failure, except grapes. Veld bare, and water scarce. Birds starving, and invading town from the bush, taking toll on fruit. Rainfall: 1·32 inch on twelve days.—Thos. C. Hall.

Uitenhage.—Extreme heat, 100 degrees, 115 degrees, and 104 degrees, with only 0·69 inch of rain on six days. A hot, dry month; drought increasing.—Herbert Inggs.

Graaff-Reinet (*Convent*).—Some days during the month were exceptionally hot and sultry and were followed by equally oppressive nights, the minimum temperature on the 8th, 22nd, and 23rd being 73·0 degrees, 79·2 degrees, and 77·6 degrees respectively. A severe thunderstorm passed over the town on the afternoon of the 23rd, accompanied by a heavy shower (1·50 inch). Winds variable. Rainfall: 1·86 inch on five days.—The Mother Superior.

Keerweder (*French Hoek*).—The latter part of the month was unusually hot for this station. Rainfall: 0·48 inch on one day.—P. Eglington.

Belvedere (*Knysna*).—The principal feature of the month was the extreme heat experienced on many days, accompanied with thick fog banks and mist; also two thunderstorms passing over from north, going south and south-east unfortunately, without bringing the much-needed rain. Maximum readings: 90·3 degrees on 21st, 109·4 degrees on 22nd, and 99·5 degrees on 27th. Rainfall: 1·29 inch on eight days.—F. Thornbury.

Lovedale.—The drought, which was interrupted in December, began again in January and continued this month. The rain (1·98 inch on ten days) that fell, besides being far below normal and on dry ground, was of so violent a nature as to give a large run-off, and the ground never became soaked.—Charles H. Pilson.

Andriesfontein (*Hanover*).—Wheat crop a failure, owing to frost in November. Stock improving. Rainfall: 3·12 inches on seven days.—H. van der Merwe.

Nelspoort (*Beaufort West*).—Thunder hanging about most of month. Not much rain, and weather oppressive. Small swarms of flying locusts practically daily passed over during last ten days of month. Rainfall: 0·92 inch on 3 days.—Dr. Peter Allan.

Sandflats (*Mount Currie*).—Live stock: Condition very good all round. Blue-tongue rather prevalent amongst sheep, but no severe cases. *Veld:* Very dry for time of year. Wilted owing to hot and dry weather. *Crops:* Maize has improved wonderfully owing to drier weather. Hay-making going on, and ploughing and sowing for winter-feed, which so far has come up well. Mean maximum temperature, 77·6 degrees; highest maximum temperature, 86·4 degrees on 23rd; mean minimum temperature, 56·8 degrees; lowest minimum temperature, 50·2 degrees on 10th; lowest minimum temperature on grass, 40·6 degrees on 5th. Rainfall: 1·86 inch on seven days.—H. B. Corderoy.

Hofmeyr.—The rain during the month has been fairly general throughout the district, and prospects for winter months are excellent. Rainfall: 4·13 inches on nine days.—S.A. Police.

Maclear.—Month very free of winds. Not enough rain in February, auguring ill for the winter season. Rainfall: 3·14 inches on nine days.—R. W. M. Rushton.

Mount Fletcher.—Rainfall rather below average. Crops looking well. A very disagreeable month of heat. Rainfall: 3·50 inches on twelve days.—J. McDougall.

Tsolo.—Very hot month. Rain badly wanted. Stock fair. Rainfall: 2·02 inches on nine days.—H. P. Tillard.

Kraaipan (*Mafeking*).—The showers during the month kept the veld in good condition, and winter-feeding is assured. Rainfall: 2·41 inches on nine days.—P. J. Hart.

Darling (*Malmesbury*).—Extreme heat. Thunder weather, with very little wind. Rainfall: 0·10 inch on one day.—P. H. Drake.

Riversdale.—During the month the maximum temperature was over 100·0 degrees on two days, 101·0 degrees on 21st, and 108·0 degrees on 22nd. Rainfall not sufficient to break drought. Rainfall: 0·51 inch on two days.—Rev. Martin Johnson.

Cathcart.—A warm month. Maximum temperature often 90·0 degrees or over; highest temperature, 94·0 degrees on 4th. Rainfall: 4·48 inches on thirteen days.—C. E. Whibley.

Queenstown.—Veld in fair condition. A hot month on the whole; on eight days the thermometer registered over 90·0 degrees, and as the rainfall was scanty for this time of the year the veld is not as good as it might be. Unless heavy rains fall in March to replenish dams, etc., the country and town will have to face another dry winter season with its difficulties. Rainfall: 2·04 inches on twelve days.—J. F. C. Rein.

Vruchtbaar (*Wellington*).—Very dry and warm. Vines and late fruits have suffered considerably. Rainfall: 0·32 inch on two days.—P. J. Cillie (C.'s son).

The Rectory (*George*).—A month of high temperatures for George. Many thunderstorms around, but none developed on this side of the mountain. Many sea-mists, which is typical February weather here. The crops are not as good as might have been expected. Apples very small. Mealies for the most part dried up. Lowest amount of rainfall for February since 1918: 1·03 inch on nine days.—Bernard Price.

Rooi Rivier (*Uniondale*).—7th, thunder and hailstorm, which caused much damage. Rainfall: 0·43 inch in fifty minutes.—W. G. Schaap, jun.

De Rust (*Oudtshoorn*).—7th, heavy thunder; lightning killed one coloured man and set one house on fire. Heavy hailstorm near foot of mountain range. Rainfall: 0·56 inch in three hours fifteen minutes.—S.A. Police.

Upper Matjesvlei (*Beaufort West*).—19th, 3·75 inches of rain fell in two hours, bursting big dam of seventy years' standing.—E. J. E. Nel.

Stoltz Rivier (*Beaufort West*).—23rd, heavy shower in mountains, river came down, dam rose 4 feet.—J. Behm.

Weldon (*Willowmore*).—Drought still very severe. Rainfall: 0·70 inch on two days.—A. B. Brunsdon.

Ovendale (*Willowmore*).—23rd, thunder and lightning. A steady rain, doing a lot of good to the veld, which is in a poor condition. A mile from this station 3 inches of rain fell, railway washed away, 102 goats drowned, and damage done to vermin-proof fencing. Rainfall: 1·01 inch in one hour. J. G. Kilian.

Chelmsford (*Aberdeen*).—We had terrific heat during February, with no rain, and a most severe drought prevailing in this part of the district. Rainfall . 0·30 inch on two days.—F. Hayward.

Bloemhof (*Graaff-Reinet*).—Drought only partly broken. Rainfall: 1·56 inch on six days.—A. E. Murray.

Varschvlei (*Maraisburg*).—The country in general is looking very fine; as far as I can ascertain much more rain has fallen in the immediate neighbourhood. Rainfall: 2·52 inches on eight days.—W. J. J. van Heerden.

Ventnor (*Tarkastad*).—1st, very dry, no water running in river at all. Veld black and very short. Rainfall: 2·71 inches on seven days.—A. King.

Groot Toren (*Calvinia*).—22nd was a continuous rain from 1.40 p.m. to 5.30 p.m.; but very heavy showers, with a terrible wind and thunder. Very likely the Hantams River was full, for along the river heavy showers were observed. 23rd, at the station itself there was very little rain, but about two to three miles south to west of the station were heavy showers, so that river was flooded. Rainfall: 2·08 inches on five days.—N. S. Louw.

Colesberg Gaol (*Colesberg*).—19th, heavy rain and sluits running strong, causing a lot of damage in the area of the municipality, such as washing away fences and big sluits. Rainfall: 1·85 inches in three hours on 19th.—The Gaoler.

Roodehoogte (*Middelburg*).—6th, thunder and lightning, hail damage. Rainfall: 1·06 inches in three and a half hours.—C. Botha.

Wolvekloof (*Steynsburg*).—Outlook seems very promising. Record mealie crop is expected. All cattle fine. Bush is scarce in parts. Rainfall: 3·27 inches on eight days.—J. Kruger.

Theefontein (*Hanover*).—Flying locusts about in first week of month, followed by large numbers of small and large locust birds.—E. A. Murray.

Groot Vallei (*Cradock*).—6th, terrific hailstorm over portion of farm, damaging mealies and gardens. Rainfall: 2·34 inches in two and a half hours.—W. du Plessis.

Ezelsfontein (*De Aar*).—It has been raining in parts during this month, and farms quite close must have had much more rain than was registered here, but, on the other hand, there are farms that had practically nothing. *Stock* in good to fair condition. *Locusts* have disappeared, caused, I suppose, by the locust birds. These birds, both big and small, appeared by the thousands. Rainfall: 1·21 inch on four days.—W. S. Marais.

Riversdale (*Cathcart*).—24th, the river came down very suddenly and very high, washed a motor-car which had stuck fast in Tylden Drift down the river.—C. R. Miles.

Paterson (*Alexandria*).—Very dry. Rainfall: 0·36 inch on three days.—D. du Plessis Steyn.

Hazelmere (*Stutterheim*).—The opening of this year has been very dry. Cattle and sheep very good, considering how dry it has been; no thorough soaking rain, consequently a few hot days. Grass shows dry patches. Lands not turned over early are too dry to plough. Rainfall: 2·05 inches on seven days.—S. E. Arnold.

Hopewell (*Stutterheim*).—Magnificent stand of mealies, which needs more rain. Rainfall: 2·96 inches on eleven days.—Jas. W. Whittal, jun.

Dalkeith (*Molteno*).—6th, severe hailstorm damaged all green feeding. Rainfall: 0·67 inch in ten minutes.—E. I. Larter.

Weltevreden (*Molteno*).—During February most of the rains were soft, without much wind. The rain of the 28th (1·62 inch) was accompanied by much lightning and storm. On some farms, where ploughing had not yet taken place, much work is being done. It is now a certainty that there will be a good crop of mealies, as at present they are still very young. The lands are now in good condition for ploughing. Grain was very fair on some farms, but weak on most owing to the drought. Rainfall: 5·20 inches on twelve days.—W. M. Steyn.

Vineyard (*Albert*).—Excellent wheat crops. Cattle and sheep in good condition. Mealie crop not very promising. Veld splendid.—C. J. Hoar.

Hendham (*Queenstown*).—Dry, very hot month; crops and veld parched. Rainfall: 1·37 inch on four days.—S. J. Fletcher.

Damplaats (*Albert*).—The veld and crops are beginning to look fine. Cattle begin to get fat. We await a fine winter.—A. Kruger.

Hopkins (*Kuruman*).—There may be a few mealies in this vicinity. There was only 0·03 inch of rain for twenty-five days, the latter end of December no rain for six days, and only 0·03 inch for twenty-nine days in January, and very hot days; nearly everything planted died during that time, not only here, but in the vicinity. Many persons planted four and five bags of mealies. Rainfall: 2·20 inches on seven days.—John Langdon, J.P.

BECHUANALAND.

Mahalapye.—Everything very dry for February. Lots more rain wanted to fill vleis, pans, etc. River should be running now. Rainfall: 1·64 inch on six days.—Miss M. Giles.

Dikgatlong Ranch (*Tuli Block*).—The weather during February was disappointing; rain only fell on four days, total 1·12 inch; in consequence the veld has got very dry. No locusts.—Paul Jansse.

Kalamarie.—The rainfall during the month was very unevenly distributed, with showers but here and there. The Mahalapye and Metla Rivers have not run this season up to the present, and unless we get a good downfall during March it will be very serious in this district. The crops are badly in need of rain. Horses are dying of horse-sickness.—E. Smith.

BASUTOLAND.

Mafeteng.—Excellent rains fell during the month, totalling 5·23 inches on twelve days. Several severe thunderstorms. Crops and stock looking splendid. Several very hot spells during the month.—F. Hodgson.

WEATHER CHARACTERISTICS FOR THE MONTH OF APRIL.

Along the western and southern coasts and in the south-west of the Cape Province the rains are now increasing; but over the other portions of the Union the decreasing precipitation indicates the advent of autumn and the approach of the dry season. The heaviest rainfall should occur over the Cape Peninsula where the normal for the month is about 3·0 inches; then in order come Natal, the south coast, the south-west of the Cape, and Basutoland, with 2·5 inches; Kaffraria, the Cape south-western and north-eastern districts, and the Orange Free State, with 2·0 inches; the Transvaal, the Cape northern borders, and the northern Karroo, with 1·5 inch; and the southern and central and east-central Karroo and the west coast, with 1·0 inch.

The mean daily air temperature is now about 70 degrees on the Transvaal low veld; 68 degrees in Natal; 65 degrees in the Cape south-eastern districts; 64 degrees along the west coast and over the southern Karroo; 63 degrees over the Cape south-western districts; 62 degrees over the Cape Peninsula; 61 degrees along the south coast and over the Transvaal high veld; 60 degrees in the Orange Free State; 59 degrees in Basutoland and over the Cape north-eastern districts; 58 degrees on the north and 57 degrees on the central Karroo. Light frosts may be expected.

In the Transvaal about 78 per cent., over the Cape northern borders 77 per cent., and over the south-west of the Cape 61 per cent. of the total possible hours of bright sunshine should be enjoyed.

Over the northern border of the Cape Province, north-north-westerly, and over the south-east of the Cape, north-easterly and south-westerly winds prevail; over the Transvaal there is a decrease in frequency and force of winds from south-east round by east to north-north-west, with an increase in frequency of stronger winds from the other points of the compass; over the Cape Peninsula southerly winds still prevail, but with much diminished force.

AIR TEMPERATURES (SELF-REGISTERING THERMOMETERS IN THERMOMETER-SCREENS), FEBRUARY, 1925.

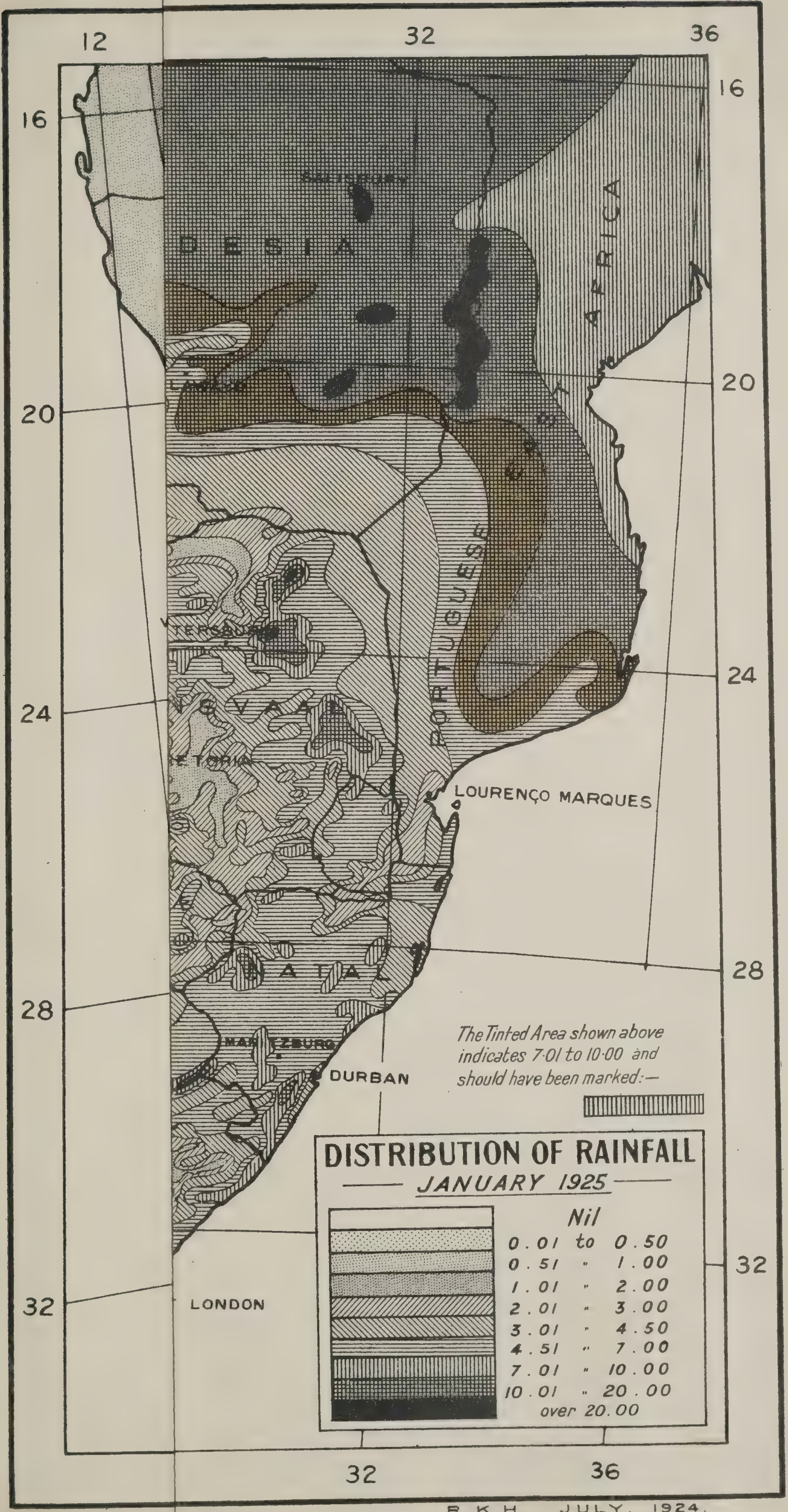
Station.	Observer.	Mean Maximum Temperature.	Mean Minimum Temperature.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Transvaal—										
Barberton	Walter Grubb	85·8	64·8	75·3	72·4	+ 2·9	93·0	9th	60·0	4th and 5th.
Belfast	The Forester	75·1	50·5	62·8	62·4	+ 0·4	84·0	20th	34·0	5th.
Bloemhof	C. J. van Tonder	86·6	62·6	74·6	72·0	+ 2·6	96·4	5th	59·5	18th.
Ermelo	J. Dean	77·8	54·4	66·1	65·3	+ 0·8	84·2	20th	45·3	5th.
Johannesburg (Observatory)	The Staff	76·6	56·6	66·6	64·4	+ 2·2	84·8	24th	51·8	6th.
Klerksdorp (Strathmore)	Chas. Scott	83·6	60·2	71·9	72·7	− 0·8	90·0	5th	54·0	23rd.
Komatipoort	A. H. White	90·5	70·0	80·2	79·4	+ 0·8	99·0	27th	60·0	27th.
Louis Trichardt	R. J. Potgieter	77·9	59·9	68·9	69·9	− 1·0	89·0	15th	54·0	28th.
Nylstroom	G. Bakker	84·6	60·6	72·6	71·4	+ 1·2	90·0	20th	54·0	6th.
Pietersburg	W. J. Frankelyne	83·2	59·8	71·5	69·6	+ 1·9	93·0	16th	54·0	28th.
Piet Retief	J. Werner	78·0	59·4	68·7	67·[illegible]	+ 1·6	89·0	9th	54·0	4th.
Pigeonhole (New Agatha)	J. McCallum	73·4	60·5	67·0	—	—	80·0	15th and 16th	56·0	18th and 19th.
Pilgrims Rest	E. M. Skea	76·9	57·7	67·3	67·0	+ 0·3	84·0	9th and 16th.	49·0	5th.
Potchefstroom (Exp. Farm)	The Manager	81·5	59·2	70·4	69·8	+ 0·6	88·6	5th	54·8	23rd.
Pretoria (Meteorological Office)	The Staff	83·2	61·5	72·4	70·6	+ 1·8	89·0	20th	58·3	14th.
Rustenburg	A. Streatfield	85·5	59·9	72·7	73·2	− 0·5	91·0	5th	54·0	7th.
Zeerust	H. Dietrich	85·1	62·2	73·6	73·0	+ 0·6	92·7	5th	58·0	20th.
Swaziland—										
Mbabane	Swaziland Police	77·8	59·3	68·6	66·8	+ 1·8	88·0	9th	52·0	5th.
Orange Free State—										
Bethulie	J. J. Wardhaugh	84·4	59·2	71·8	71·9	− 0·1	92·9	5th	53·2	4th.
Bloemfontein	G. A. Scheepers	83·7	60·0	71·8	71·2	+ 0·6	93·2	5th	55·7	3rd.
Harrismith	The Forester	73·7	54·1	63·9	64·6	− 0·7	81·0	8th	48·0	4th.
Kroonstad	A. C. Mason	82·8	59·4	71·1	71·4	− 0·3	90·3	5th	55·7	11th.
Ladybrand	The Forester	78·1	57·5	67·8	68·0	− 0·2	87·0	5th	54·0	2nd and 7th.
Lindley	W. Murphy	79·2	57·2	68·2	68·4	− 0·2	87·0	4th	50·1	6th.
Natal—										
Dundee	W. Thorrold	80·1	58·0	69·0	71·2	− 2·2	90·0	8th	54·0	11th.
Durban (Point)	The Port Captain	83·3	72·0	77·6	76·6	+ 1·0	88·2	8th	67·6	4th and 17th.
Empangeni	The Forester	83·4	68·6	76·0	77·4	− 1·4	97·0	8th	62·0	11th.
Hlabisa	E. E. Redgrove	81·7	65·2	73·4	73·4	± 0·0	92·0	9th	59·0	4th.
Ladysmith	D. A. R. Leathern	84·7	63·0	73·8	76·3	− 2·5	93·0	8th, 9th, and 23rd	56·0	11th.
Maritzburg (Mental Hospital)	The Superintendent	80·3	63·1	71·7	73·4	− 1·7	94·0	23rd	57·0	11th.
Stanger	C. C. Foss	84·1	68·2	76·2	77·2	− 1·0	96·0	23rd	62·0	4th.
Weenen	The Gaoler	84·2	61·9	73·0	76·0	− 3·0	93·4	9th	54·0	21st.

AIR TEMPERATURES, FEBRUARY, 1925—(*continued*).

Station.	Observer.	Mean Maximum Temperature.	Mean Minimum Temperature.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
Cape Province—										
Aliwal North	A. Alcock	84·3	57·0	70·6	69·2	+ 1·4	92·5	4th	48·0	3rd.
Bedford	T. C. Hall	88·0	60·4	74·2	70·7	+ 3·5	104·0	4th	50·0	3rd.
Capetown (Royal Observatory)	The Staff	84·2	62·0	73·1	69·7	+ 3·4	102·1	21st	53·2	9th.
Carnarvon	A. P. Malherbe	91·0	62·5	76·8	69·4	+ 7·4	97·0	3rd and 4th	50·0	10th.
Clanwilliam	C. B. van Zijl	97·3	62·0	79·6	75·8	+ 3·8	109·0	22ndand 27th	49·0	10th.
East London	The Port Captain	79·1	65·1	72·1	69·5	+ 2·6	95·0	23rd	58·8	2nd.
Graaff-Reinet (Convent)	The Mother Superior	93·9	64·0	79·0	74·0	+ 5·0	104·2	4th	55·0	10th.
Grahamstown	The Vet. Res. Officer	84·2	58·2	71·2	70·8	+ 0·4	104·2	22nd	48·6	3rd.
Groot Drakenstein	A. Franceys	92·3	63·4	77·8	72·6	+ 5·2	108·0	26th	51·0	15th.
Kenhardt	R. Seydell	98·4	69·6	84·0	78·6	+ 5·4	105·0	6th	57·0	11th.
Kimberley	C. H. Dowler	87·8	64·0	75·9	75·2	+ 0·7	96·6	4th	60·0	11th and 12th.
Kingwilliamstown	W. A. Kindness	86·9	63·4	75·2	73·0	+ 2·2	106·0	22nd	51·0	3rd.
Kokstad	H. D. Coyte	79·5	56·2	67·8	66·4	+ 1·4	91·0	23rd	49·7	2nd.
Mafeking (Convent)	The Mother Superior	83·8	63·0	73·4	72·9	+ 0·5	90·2	24th	58·0	23rd.
Mossel Bay (Cape St. Blaize)	The Lightkeeper	76·0	65·9	71·0	69·6	+ 1·4	91·0	21st	59·0	9th.
O'okiep	J. Burrows	86·2	65·5	75·8	72·2	+ 3·6	97·1	26th	51·3	10th.
Port Elizabeth	The Lightkeeper	78·9	66·0	72·4	69·8	+ 2·6	96·0	27th	57·0	10th.
Port Nolloth	The Lightkeeper	66·8	53·5	60·2	60·1	+ 0·1	84·0	24th	45·0	16th.
Port St. Johns (Cape Hermes)	The Lightkeeper	79·6	68·8	74·2	72·4	+ 1·8	87·0	23rd	64·0	10th and 11th.
Queenstown	H. Holley	86·2	59·9	73·0	69·9	+ 3·1	95·0	23rd	52·0	5th.
Somerset East	C. Harris	87·6	61·4	74·5	71·4	+ 3·1	103·8	4th	53·0	2nd and 10th.
Stutterheim	F. C. Bousfield	83·3	59·9	71·6	68·0	+ 3·6	100·5	22nd	52·1	1st.
Sydney's Hope	Rev. S. Rippon	84·5	61·4	73·0	70·2	+ 2·8	106·2	22nd	50·0	5th.
Uitenhage	H. Inggs	86·4	62·9	74·6	73·4	+ 1·2	115·0	22nd	51·0	10th,
Umtata	B. Hackett	84·9	62·3	73·6	70·6	+ 3·0	102·5	23rd	54·2	3rd.
Vryburg	Sergt. H. White	86·3	63·4	74·8	75·2	— 0·4	95·0	5th	59·0	17th, 23rd, and 28th.
Wynberg (Convent)	The Mother Superior	83·1	62·2	72·6	68·8	+ 3·8	95·5	22nd	53·0	9th.
Basutoland—										
Mafeteng	F. Hodgson	78·4	56·3	67·4	70·8	— 3·4	86·0	5th	51·0	2nd, 3rd, and 7th.

RAINFALL, FEBRUARY, 1925.

Station.	Observer.	February, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Transvaal—										
Barberton	W. Grubb	4·49	4·41	+ 0·08	9·60	10·92	− 1·32	27·79	24·94	+ 2·85
Belfast	The Forester	4·45	3·54	+ 0·91	8·90	9·69	− 0·79	25·46	25·62	− 0·16
Bethal	H. F. Joubert	1·66	3·87	− 2·21	4·20	9·20	− 5·00	21·25	24·81	− 3·56
Bloemhof	C. J. van Tonder	3·12	3·71	− 0·59	4·87	7·12	− 2·25	16·22	13·66	+ 2·56
Clermont	S.A. Police	1·48	2·10	− 0·62	6·09	6·70	− 0·61	15·62	14·63	+ 0·99
Ermelo	The Forester	0·85	3·15	− 2·30	4·16	9·27	− 5·11	20·70	26·39	− 5·69
Haenertsburg	S.A. Police	7·18	5·95	+ 1·23	17·16	15·34	+ 1·82	36·08	29·33	+ 6·75
Johannesburg (Observatory)	The Staff	4·41	4·97	− 0·56	9·49	10·54	− 1·05	23·15	24·92	− 1·77
Joubert Park (Johannesburg)	The Superintendent	4·90	5·31	− 0·41	11·77	11·61	+ 0·16	28·18	26·23	+ 1·95
Klerksdorp (Strathmore)	C. Scott	4·13	3·94	+ 0·19	7·02	8·00	− 0·98	19·50	17·80	+ 1·70
Komatipoort	A. H. White	6·10	5·66	+ 0·44	12·30	10·66	+ 1·64	30·80	20·57	+10·23
Louis Trichardt	R. J. Potgieter	6·00	5·87	+ 0·13	13·01	12·24	+ 0·77	28·88	24·15	+ 4·73
Nylstroom	G. Bakker	2·67	3·83	− 1·16	7·00	9·03	− 2·03	18·50	19·79	− 1·29
Pietersburg	W. J. Frankleyne	0·70	3·35	− 2·65	5·66	7·63	− 1·97	16·55	17·53	− 0·98
Piet Retief	J. Werner	4·82	4·99	− 0·17	11·11	11·54	− 0·43	36·50	29·58	+ 6·92
Pigeonhole (New Agatha)	J. McCallum	10·99	9·36	+ 1·63	22·26	18·43	+ 3·83	47·80	37·24	+10·56
Pilgrims Rest	E. M. Skea	7·58	7·84	− 0·26	15·90	16·21	− 0·31	33·49	30·55	+ 2·94
Potchefstroom (Exp. Farm)	The Manager	4·51	3·86	+ 0·65	8·82	8·01	+ 0·81	22·77	19·03	+ 3·74
Pretoria (Meteorological Office)	The Staff	3·26	4·80	− 1·54	8·26	10·66	− 2·40	23·30	24·13	− 0·83
Rooiberg	N. Monro	3·35	3·57	− 0·22	7·44	9·56	− 2·12	18·33	20·22	− 1·89
Rustenburg	A. Streatfield	4·47	4·23	+ 0·24	7·31	9·26	− 1·95	20·85	21·21	− 0·36
Standerton	The Magistrate	4·67	5·17	− 0·50	—	—	—	—	—	—
Wakkerstroom	J. Cilliers	2·95	4·85	− 1·90	10·45	10·95	− 0·50	26·79	26·35	+ 0·44
Woodbush I.	The Forester	12·60	12·81	− 0·21	27·14	29·58	− 2·44	60·46	55·66	+ 4·80
Zeerust	H. Dietrich	5·98	4·31	+ 1·67	7·44	8·76	− 1·32	22·19	18·49	+ 3·70
Swaziland—										
Mbabane	Swaziland Police	13·42	8·22	+ 5·20	19·95	18·59	+ 1·36	59·72	42·10	+17·62
Orange Free State—										
Bethulie	J. J. Wardhaugh	3·90	3·22	+ 0·68	7·27	5·86	+ 1·41	14·80	12·05	+ 2·75
Bloemfontein	G. A. Scheepers	2·15	3·31	− 1·16	4·99	7·07	− 2·08	15·07	14·86	+ 0·21
Boshof	The Postmaster	2·93	2·77	+ 0·16	4·72	5·82	− 1·10	14·53	13·18	+ 1·35
Harrismith	The Forester	2·93	4·46	− 1·53	5·55	9·50	− 3·95	22·87	23·48	− 0·61
Kroonstad	A. C. Mason	2·70	3·56	− 0·86	4·94	7·77	− 2·83	22·25	17·71	+ 4·54
Ladybrand	The Forester	3·45	4·07	− 0·62	6·92	8·85	− 1·93	27·32	20·84	+ 6·48
Lindley	The Gaoler	4·34	3·57	+ 0·77	7·56	7·83	− 0·27	—	18·49	—
Natal—										
Dundee	W. Thorrold	7·88	4·69	+ 3·19	12·15	10·73	+ 1·42	31·35	25·16	+ 6·19
Durban	The Port Captain	5·86	4·69	+ 1·17	8·94	9·05	− 0·11	28·63	29·77	− 1·14



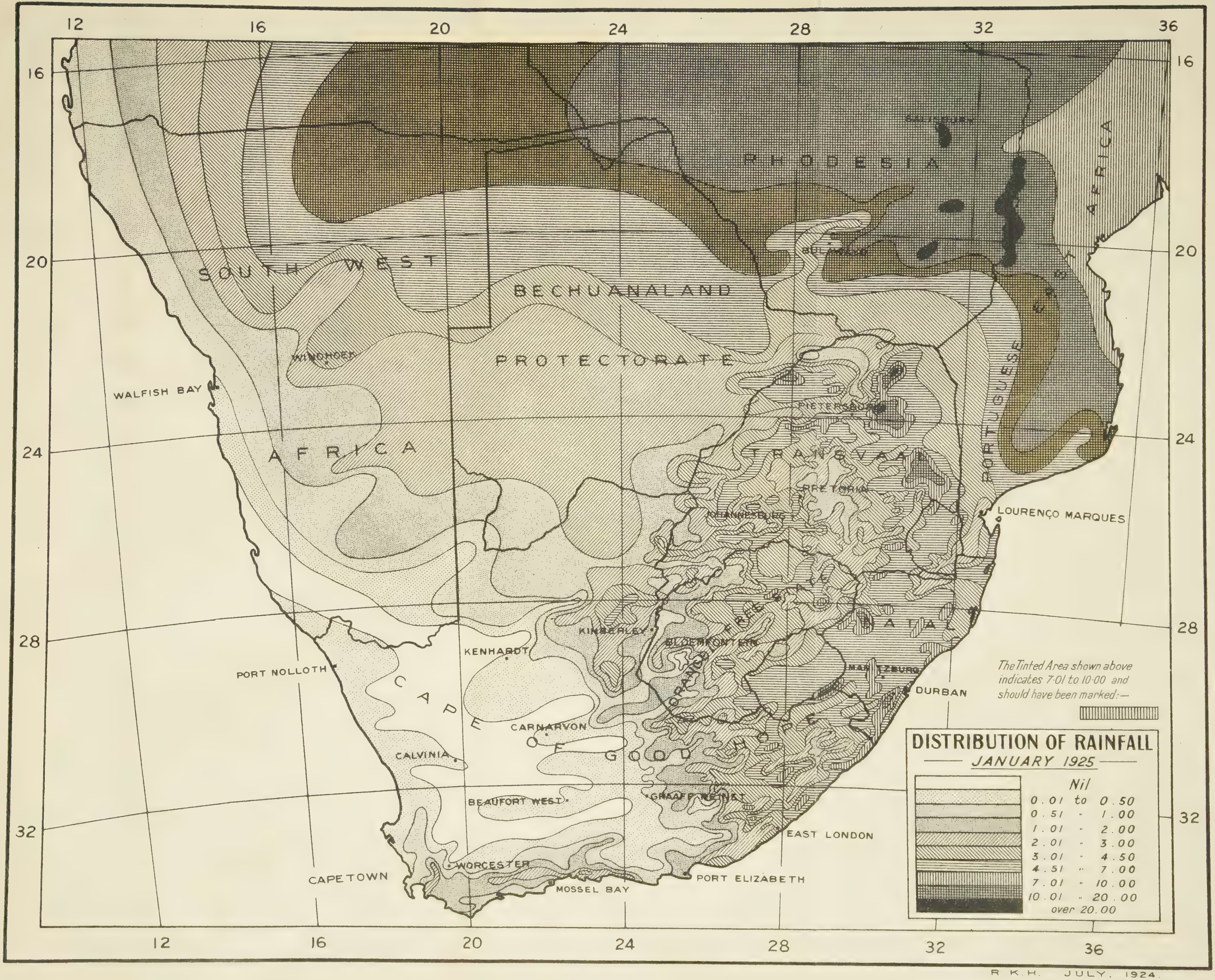
The Tinted Area shown above indicates 7·01 to 10·00 and should have been marked:—

DISTRIBUTION OF RAINFALL

JANUARY 1925

R.K.H. JULY. 1924.

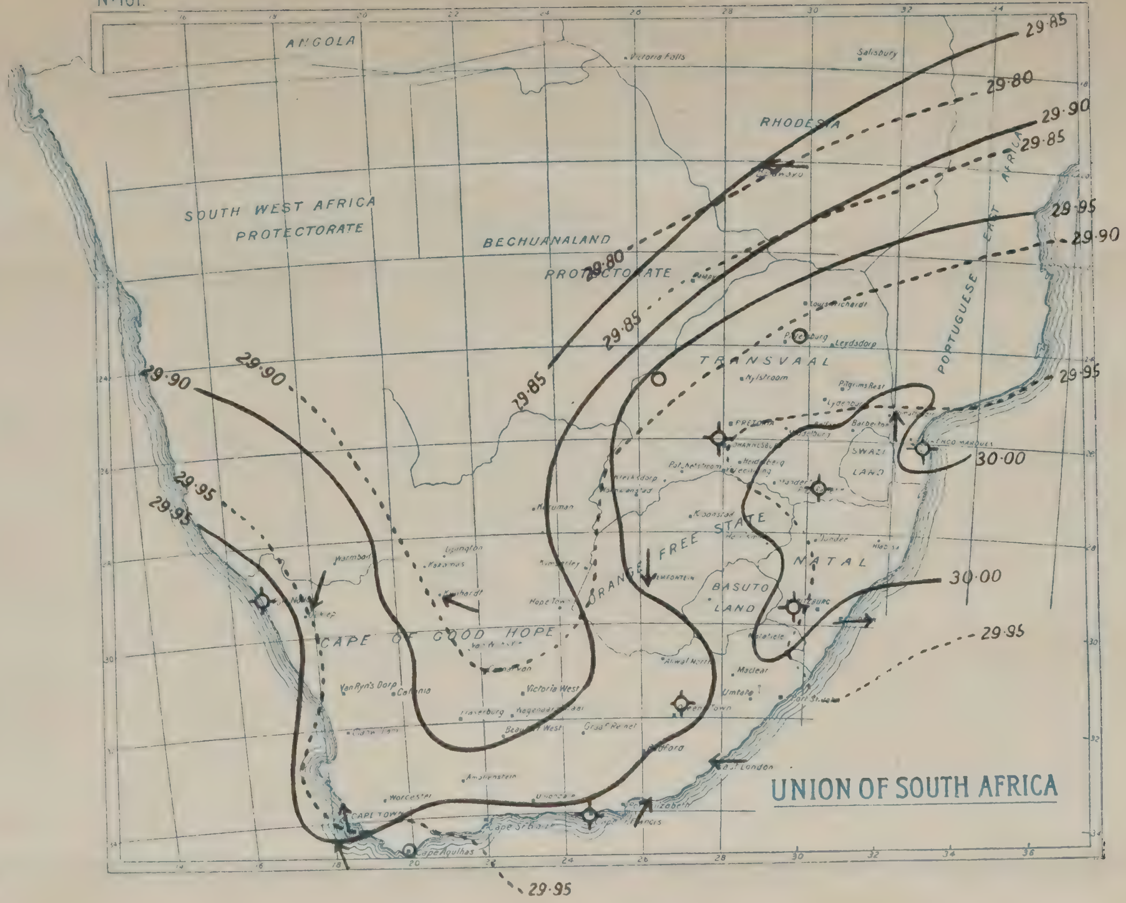
SOUTH AFRICA



The Tinted Area shown above indicates 7·01 to 10·00 and should have been marked:—

R. K. H. JULY, 1924.

N°101.



February, 1925. Prevailing Winds and Mean Baromtric Pressure at 8.30 a.m.
The dotted lines indicate the normal distribution for February.

RAINFALL, FEBRUARY, 1925—(*continued*).

Station.	Observer.	February, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
Natal—(continued).		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Empangeni	The Forester	10·77	5·26	+ 5·51	15·29	11·14	+ 4·15	41·79	32·98	+ 8·81
Estcourt	The Town Clerk	5·44	4·83	+ 0·61	11·77	10·42	+ 1·35	33·24	22·76	+10·48
Hlabisa	E. E. Redgrove	7·39	5·72	+ 1·67	14·47	12·97	+ 1·50	39·41	33·89	+ 5·52
Howick	The Gaoler	6·95	5·49	+ 1·46	12·71	10·73	+ 1·98	29·33	25·76	+ 3·57
Ladysmith	D. A. R. Leathern	3·04	5·23	— 2·19	12·70	9·88	+ 2·82	33·00	22·13	+10·87
Maritzburg (Mental Hospital)	The Staff	5·17	5·54	— 0·37	11·06	11·52	— 0·46	31·66	28·78	+ 2·88
Stanger	C. C. Foss	4·11	4·45	— 0·34	10·67	9·70	— 0·97	34·87	32·20	+ 2·67
Vryheid	The Gaoler	6·93	4·65	+ 2·28	11·90	11·54	+ 0·36	31·00	28·31	+ 2·69
Weenen	The Gaoler	4·48	4·31	+ 0·17	9·57	9·83	— 0·26	28·06	21·93	+ 6·13
Cape Province—										
Aliwal North	A. Alcock	5·63	3·40	+ 2·23	8·53	6·29	+ 2·24	16·14	14·05	+ 2·09
Beaufort West	The Gaoler	0·73	1·22	— 0·49	1·63	2·31	— 0·68	3·75	5·81	— 2·06
Bedford	T. C. Hall	1·32	3·50	— 2·18	2·74	6·87	— 4·13	10·75	17·88	— 7·13
Britstown	S.A. Police	2·09	1·93	+ 0·16	3·82	3·07	+ 0·75	7·40	6·31	+ 1·09
Calvinia	The Gaoler	0·95	0·42	+ 0·53	0·98	0·79	+ 0·19	4·12	4·28	— 0·16
Capetown (Royal Observatory)	The Staff	0·20	0·58	— 0·38	0·79	1·27	+ 0·48	11·03	14·19	— 3·16
Ceres	The Gaoler	0·35	0·55	— 0·20	0·89	1·57	— 0·68	19·75	24·36	— 4·61
Carnarvon	A. P. Malherbe	2·02	1·26	+ 0·76	2·19	2·28	— 0·09	—	4·52	—
Clanwilliam	The Gaoler	0·40	0·23	+ 0·17	0·41	0·45	— 0·04	3·75	4·78	— 1·03
Concordia	F. R. Carstens	1·02	0·47	+ 0·55	1·09	0·65	+ 0·44	—	3·35	—
Driefontein (French Hoek)	The Forester	0·00	0·60	— 0·60	2·37	2·80	— 0·43	41·16	41·23	— 0·07
East London	A. Downie	1·62	3·28	— 1·66	5·20	6·47	— 1·27	16·18	22·72	— 6·54
Fraserburg	The Gaoler	2·50	0·94	+ 1·56	2·50	1·67	+ 0·83	3·90	3·67	+ 0·23
Grahamstown	The Vet. Res. Officer	0·50	2·79	— 2·29	2·15	5·32	— 3·17	10·03	19·12	— 9·09
Garies	The Gaoler	1·00	0·14	+ 0·86	—	0·27	—	—	2·78	—
Graaff-Reinet (Convent)	The Mother Superior	1·86	1·82	+ 0·04	2·27	3·19	— 0·92	6·07	8·86	— 2·79
Groot Drakenstein	A. L. Franceys	0·22	0·61	— 0·39	1·11	1·71	— 0·60	19·69	20·29	— 0·60
Griquatown	The Gaoler	1·31	2·21	— 0·90	2·52	3·97	— 1·45	10·23	7·66	+ 2·57
George (Rectory)	Rev. Canon B. Price	1·03	3·50	— 2·47	3·99	6·58	— 2·59	22·50	23·04	— 0·54
Hanover	The Gaoler	2·31	2·10	+ 0·21	2·76	3·75	— 0·99	6·12	7·82	— 1·70
Hopetown	The Gaoler	—	1·87	—	—	3·76	—	—	7·52	—
Kenhardt	R. Seydell	0·38	1·21	— 0·83	0·48	1·78	— 1·30	3·09	3·31	— 0·22
Kimberley	C. H. Dowler	3·65	2·64	+ 1·01	5·32	4·97	+ 0·35	14·54	10·70	+ 3·84
Knysna	The Gaoler	1·39	2·12	— 0·73	3·26	4·22	— 0·96	17·76	19·13	— 1·37
Kokstad	H. D. Coyte	4·61	4·24	+ 0·37	8·70	8·76	— 0·06	27·64	20·41	+ 7·23
Kingwilliamstown	W. Kindness	1·60	3·29	— 1·69	3·91	5·83	— 1·92	12·63	17·49	— 4·86
Kuruman	The Resident Magistrate	3·93	3·20	+ 0·73	6·92	6·49	+ 0·43	—	11·42	—
Mafeking (Convent)	The Mother Superior	2·15	3·69	— 1·54	6·41	7·92	— 1·51	18·20	17·18	+ 1·02
Mossel Bay (Cape St. Blaize)	The Lightkeeper	0·73	1·46	— 0·73	1·71	2·64	— 0·93	7·86	11·13	— 3·27
O'okiep	J. Burrows	1·47	0·33	+ 1·14	1·50	0·54	+ 0·96	2·68	3·84	— 1·16

RAINFALL, FEBRUARY, 1925—(*continued*).

Station.	Observer.	February 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
Cape Province—(continued).		Inches	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Philipstown	The Gaoler	1·94	2·19	− 0·25	3·10	3·88	− 0·78	7·88	8·04	− 0·16
Piquetberg	The Gaoler	0·32	0·48	− 0·16	1·01	1·03	− 0·02	11·81	12·46	− 0·65
Port Elizabeth	The Lightkeeper	0·35	1·34	− 0·99	1·30	2·54	− 1·24	10·32	14·66	− 4·34
Port St. Johns	The Lightkeeper	5·78	5·81	− 0·03	11·77	10·73	+ 1·04	32·21	35·70	− 3·49
Port Nolloth	The Lightkeeper	0·00	0·05	− 0·05	0·18	0·12	+ 0·06	1·09	1·20	− 0·11
Prieska	The Gaoler	2·61	1·57	+ 1·04	2·90	2·80	+ 0·10	6·44	5·22	+ 1·22
Queenstown	H. Holley	1·89	4·04	− 2·15	5·68	7·42	− 1·74	14·07	16·26	− 2·19
Steytlerville	The Gaoler	1·08	1·24	− 0·16	1·33	2·06	− 0·73	3·71	5·78	− 2·07
Sutherland	The Gaoler	2·72	0·67	+ 2·05	2·81	1·17	+ 1·64	—	5·14	—
Swellendam	The Gaoler	0·91	2·76	− 1·85	2·46	5·17	− 2·71	16·81	20·77	− 3·96
Sydney's Hope	Rev. S. Rippon	0·99	2·01	− 1·02	2·49	4·07	− 1·58	12·88	14·99	− 2·11
Somerset East	C. Harris	1·44	3·26	− 1·82	2·42	6·05	− 3·63	9·75	17·26	− 7·51
Stutterheim	F. C. Bousfield	3·12	4·34	− 1·22	5·88	8·26	− 2·38	15·49	21·47	− 5·98
Uitenhage	H. Inggs	0·69	1·60	− 0·91	1·71	2·71	− 1·00	8·66	11·15	− 2·49
Umtata	B. J. Hackitt	2·54	3·62	− 1·88	4·46	7·18	− 2·72	14·97	18·16	− 3·19
Uniondale	The Gaoler	0·86	0·95	− 0·09	1·50	1·63	− 0·13	7·75	8·01	− 0·26
Upington	The Gaoler	0·81	1·04	− 0·23	1·35	1·87	− 0·52	3·48	3·84	− 0·36
Victoria West	The Gaoler	0·90	1·90	− 1·00	1·30	2·95	− 1·65	5·13	6·13	− 1·00
Vryburg	S.A. Police	1·86	3·61	− 1·75	4·60	7·76	− 3·16	13·13	13·66	− 0·53
Worcester	The Gaoler	0·00	0·35	− 0·35	0·05	0·60	− 0·55	3·91	7·26	− 3·35
Wynberg (Convent)	The Mother Superior	0·13	0·45	− 0·32	1·51	1·82	− 0·31	22·60	27·66	− 5·06
Basutoland—										
Mefeteng	F. Hodgson	5·23	4·61	+ 0·62	10·25	10·09	+ 0·16	24·80	22·42	+ 2·38
South-West Africa—										
Aroab	S.W.A. Police	3·94	1·55	+ 2·39	4·19	2·95	+ 1·24	4·85	4·49	+ 0·36
Aus	E. Martins	2·49	0·51	+ 1·98	2·49	0·73	+ 1·46	3·36	2·03	+ 1·33
Bethanie	Rev. Peter	1·82	0·94	+ 0·88	2·95	1·66	+ 1·29	4·47	2·43	+ 2·04
Duestenbrock	R. Matthiessen	2·77	3·64	− 0·87	4·38	6·06	− 1·68	6·27	8·30	− 2·03
Gabis	Rev. P. Rehor	0·69	0·72	− 0·03	0·87	0·81	+ 0·06	1·46	2·13	− 0·67
Garinais	F. Bentling	2·98	1·32	+ 1·66	4·13	1·85	+ 2·28	5·33	3·44	+ 1·89
Gibeon	The Postmaster	5·94	1·68	+ 4·26	6·90	3·00	+ 3·90	7·49	4·18	+ 3·31
Gobabis	Rev. Irle	3·48	3·69	− 0·21	5·71	7·65	− 1·94	8·92	11·45	− 2·53
Grootfontein	Pitkowski	7·04	5·74	+ 1·30	13·04	11·22	+ 1·82	20·68	17·79	+ 2·89
Gr. Wilvley	G. Mass	5·08	3·61	+ 1·47	7·88	6·63	+ 1·25	11·68	10·29	+ 1·39
Haribes	G. Freund	2·77	3·06	− 0·29	4·36	3·68	+ 0·68	5·04	5·30	− 0·26
Hierachabis	Rev. P. Stroka	0·37	0·79	− 0·42	1·00	1·04	− 0·04	1·31	1·95	− 0·64
Kalkfontein S.	S.W.A. Police	2·09	0·83	+ 1·26	2·31	1·04	+ 1·27	3·22	1·62	+ 1·60
Franzfontein	H. Janson	3·12	2·37	+ 0·75	6·45	4·31	+ 2·14	7·06	6·52	+ 0·54
Luderitz Bay	E. Stoeber	0·00	0·00	± 0·00	0·00	0·01	− 0·01	0·01	0·27	− 0·26
Maltahoehe	E. Just	3·34	1·46	+ 1·88	4·80	2·92	+ 1·88	5·09	3·85	+ 1·24

RAINFALL, FEBRUARY, 1925—(*continued*).

Station.	Observer.	February, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
South-West Africa—(contd).		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Neu **Heusis**	Liebig's Extract Co.	3·88	3·93	– 0·05	6·75	6·99	– 0·24	7·42	9·65	– 2·23
Okahandje	B. Templin	4·68	3·41	+ 1·27	8·68	6·41	+ 2·27	12·55	9·49	+ 3·06
Okasangumingo	R. H. A. Schneider	4·20	4·88	– 0·68	7·19	7·45	– 0·26	10·07	12·68	– 2·61
Omaruru	The Postmaster	4·26	3·12	+ 1·14	7·35	9·85	– 2·50	9·06	12·30	– 3·24
Otjiwarongo	The Magistrate	4·93	4·16	+ 0·77	9·63	6·98	+ 2·65	9·85	10·90	– 1·05
Outjo	The Magistrate	6·70	3·80	+ 2·90	11·55	7·52	+ 4·03	15·52	11·24	+ 4·28
Rehoboth	The Postmaster	1·68	2·47	– 0·79	2·62	5·27	– 2·65	3·11	7·82	– 4·71
Rietfontein	B. Leist.	8·17	5·05	+ 3·12	12·83	8·75	+ 4·08	17·16	14·58	+ 2·68
Swakopmund	The Gaoler	0·59	0·10	+ 0·49	0·59	0·20	+ 0·39	0·69	0–49	+ 0·20
Tsumeb	Ing Schetter	5·63	6·21	– 0·58	13·14	11·79	+ 1·35	22·36	18·70	+ 3·66
Usakos	Rev. Diehl	2·86	1·24	+ 1·62	4·22	2·28	+ 1·94	5·11	3·26	+ 1·85
Voigtsgrund	A. Voigts	9·33	2·82	+ 6·51	11·82	3·74	+ 8·08	12·36	4·96	+ 7·40
Warmbad	E. Luchtenstein	0·32	0·83	– 0·51	0·32	1·12	– 0·80	1·06	1·82	– 0·76
Waterberg	D. Hahn	3·83	4·69	– 0·86	6·33	9·37	– 3·04	11·03	14·40	– 3·37
Wilhelmstal	W. Boehmker	4·43	3·54	+ 0·89	6·04	6·18	– 0·14	7·76	8·80	– 1·04
Windhoek	Observatory	2·78	3·26	– 0·48	5·86	6·46	– 0·60	8·48	9·69	– 1·21

C. STEWART,
Chief Meteorologist.

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MONTHLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE.

Vol. VI. MARCH, 1925. No. 63.

Mean atmospheric pressure about five-hundredths of an inch below normal in the north and west of the Transvaal and the centre and west of the Cape Province, almost normal in the east of the Transvaal and over Natal, but slightly in excess in the south-east of the Cape Province; mean temperature of the month a few tenths of a degree lower than usual, owing to the deficit of 3 degrees in the day temperatures being slightly greater than the excess of the night temperatures above the corresponding averages; very few bright and sunny days, unusual continuously cloudy and rainy weather, with a marked scarcity of thunder and hailstorms; an excess of rainfall over the greater part of all the Provinces, amounting generally to 3–6 inches, but rising to between 10–30 inches in the north and east of the Transvaal, in Swaziland, the greater part of Natal, and Zululand, in the last of which the surplus exceeded over 40 inches in parts; floods in Zululand, Natal, the east and north of the Transvaal, portions of the north and east of the Free State, and of the Cape Province, also in Basutoland, causing a considerable amount of damage to crops, roads, houses, railway bridges, etc., and suspension of traffic by road and rail, and some loss of life; a shortage of rainfall in parts of the Carolina, Ermelo, Middelburg, and Waterberg Districts of the Transvaal; severe drought in parts of the south-west of the Cape, of the south coast, and of the southern Karroo: a break-up of the prolonged drought in the south-east and other parts of the Cape Province, and in Namaqualand; these were the outstanding features of the weather of March, 1925.

Pressure.—Mean barometric pressure was lower than usual by less than one-tenth of an inch over the north of the Transvaal, the centre and west of the Cape Province, practically normal in the west and centre of the Transvaal and Natal, and slightly higher than usual in the south-east of the Cape Province. The interior "low" was present during the greater part of the month and at times very well developed, whilst a number of low-pressure areas passed at intervals along the coast.

On the 1st, a "low" lay over the south and south-east coast and another complementary "low" over the western interior, while the western portion of a "high" was situated over the Transvaal, Free State, and Natal; since the previous day rain had fallen over the south and east of the Cape, portions of the northern interior (including Namaqualand), the south, east, and centre of the Orange Free State, and portions of the south-east, south-west, and north of the Transvaal; on the 2nd, the coastal "low" had moved to the south-east and east, the interior "low" had intensified slightly, while the eastern "high" persisted and the advance isobar of another had appeared on the west and south-west coasts; rain had fallen since the previous morning over portions of the north, also the south and south-west of the Transvaal, the Free State, Natal, and the eastern half of the Cape Province, including the east of the northern Karroo and Bechuanaland, also in the interior of South-West Africa; by the 3rd, the northern portion of the western anticyclone was covering practically the whole Union, the highest isobar of 30·15 inches lying over the south-east coast; the coastal "low" had passed off, while the isobars of the interior "low" were flatter than on the previous day; rain had fallen over much the same area as on the preceding day, with an extension towards the centre and east of the Transvaal; some showers had also fallen in South-West Africa; on the 4th, it was seen that the highest isobar of 30·15 inches had moved more to the north-east and further on to the land over the south of the Transvaal, east of the Free State, and Kaffraria, whilst the low-pressure tongue in the interior had pushed southwards along the west coast, practically to the Peninsula; in the interval rain had fallen over the southern half of the Transvaal, the Free State, with the exception of the west and centre, and Natal; by the 5th, pressure had fallen still further in the west and to a greater extent along the south coast, a complementary "low" having appeared in the south-west, while pressure remained high and practically the same in the east; local showers had fallen over the west coast, western interior of the Cape, Bechuanaland, and parts of the other Provinces, as well as in South-West Africa; by the 6th, the lowest isobar (29·80 inches) of the coastal "low" had passed to the south-east coast; it continued low over the interior, but had risen on the west coast; rain had fallen over practically the whole of the Cape Province, except the south-west and the east coast, the north and east of the Orange Free State, part of the eastern Transvaal, and of South-West Africa; by the morning of the 7th, pressure had risen in the south, fallen in the east, and was practically steady in the west and over the northern interior, showing a "low" over the western interior, with pressure increasing to east, south, and west, but highest in the south; rain had fallen over the south-west, along the south and south-east coasts, the eastern half of the Cape Province, Natal, Free State, the east and south-eastern Transvaal, and at some stations in South-West Africa; by the 8th, pressure had fallen generally, the whole Union being under the influence of two complementary "lows," one in the south-east and the other over the interior, with fragments of "highs" in the extreme east and west; some showers had fallen in the south-west, the east of the interior, and of the Cape generally, Natal, Free State, and west and south of the Transvaal, also the interior of South-West Africa; by the 9th, a high-pressure area lay over the south of the Union, but it continued low over the interior, with moderate to strong east to south-east winds over the interior and the south-west; rain had fallen generally in the south-west, along the south coast, and in the east of the Cape Province, locally over the northern interior, the western half of the Transvaal, in the Free State, Natal, and at most stations in South-West Africa; by the 10th, the high pressure on the south had moved slightly further inland, increasing in the south and east, the isobars having a north-east to south-west trend, while the "low" in the interior had once more pushed southwards in the west; moderate north-easterly to easterly breezes prevailed over the greater part of the Union, except in Natal and the east of the Transvaal, where they were southerly; rain had fallen over practically the same area as on the previous day, as well as the centre, south, and east of the Transvaal, and in Namaqualand and South-West Africa; by the 11th, the western tongue of low pressure had moved towards the centre of the country, while a second V-depression lay on the coast of Portuguese East Africa and the top of an inverted V-depression had appeared on the south coast; pressure had fallen, but was still high in the east, and another "high" lay over the west and out to sea; rain that had fallen was confined to a more limited area than on the previous day, chiefly in the east of the Cape Province, in Bechuanaland, the centre, east, south, and west of the Transvaal; by the 12th, the northern part of the western anticyclone was covering practically the whole Union, a slight fall had taken place in the north, so that the isobars lay practically in an east and west direction; rain had fallen in the meantime over the greater part of the Transvaal, with the exception of the extreme north, Natal, the Free State, Bechuanaland, portions of the east of the Cape, at a few stations in the central Karroo, and the south-west; by the morning of the 13th, pressure had fallen generally about one-tenth of an inch, the isobars assuming a north-east to south-west trend, and a "low" was affecting the west and south-west, with the western isobars lying over the ocean; the rain that had fallen was mainly confined to the southern half of the Transvaal, the north and east of the Free State, Natal, and a few stations in the east of the Cape Province; a further slight fall had taken place by the 14th, the highest isobar of 30 inches lying over Natal, while the western "low" had passed more on to the land and was affecting practically the whole of the Union; rain had occurred over practically the same area as on the previous day; a further slight fall on the 15th along the coast left the entire country under the influence of the low-pressure area; rain had occurred over the same area as on the two previous days, and also along the western portion of the south coastal area; on the 16th, a drop of about a tenth of an inch in pressure on the east coast and fall of about half this amount over the interior caused the isobars of the "low" to assume a somewhat irregular W-shape; more or less local showers had occurred over the Transvaal, Natal, the north and north-east of the Free State, and along the south coast, in much the same positions as on the 14th; on the 17th, except for a further decrease of between one-tenth and two-tenths of an inch over the south-west, bringing the southern end of the equatorial "low" well out to sea and giving the isobars in the east a more north-east to south-west trend, the distribution of pressure was very much as on the previous day; showers had fallen over practically the whole Transvaal, Natal, the north-east of the Orange Free State, and a few stations in the east and south of the Cape Province, and in Namaqualand; on the 18th, a general rise, greatest (i.e. about two-tenths of an inch) in the south-west, caused the low-pressure area to be practically confined to the land; otherwise conditions were practically the same as on the preceding day; a few showers fell in the north, east, and south-east Transvaal, north of the Free State, Natal, Kaffraria, Bechuanaland, and Namaqualand; by the 19th, a fall of about a tenth of an inch in the west and south-west and a smaller rise in the south-east and east had accentuated the western portion of the W-depression, but these were practically the only changes; local showers occurred over the same sections as the previous day, and in Namaqualand and South-West Africa; on the 20th, a fall of one-tenth to two-tenths of an inch was seen to have taken place on the south and east coasts and of about half a tenth of an inch over the northern interior, so that the "low" lay over the interior and on the south coast, with a relative "high" in the east; showers had fallen over the same areas as on the previous day; by the 21st, a slight rise had taken place over the south-west and a further fall over the interior, the south-east, and east, so that the relative "high" had disappeared from the east, leaving a very decided and well-defined low pressure over the whole country; rain had occurred more over the north and parts of the east and south of the Cape Province, Kaffraria, the Transvaal, except in the south and south-west, the east of the Orange Free State, also in Namaqualand and South-West Africa; on the 23rd, pressure had fallen about one-tenth of an inch in the south-east and east, but had risen by about the same amount over the interior and by a less amount in the north-east, while the advance isobar of an anticyclone lay off the west coast; rain had fallen in the interval over the greater part of the eastern half of the Union; by the morning of the 24th, part of the western anticyclone of the previous day had advanced on to the west and south of the Union, causing a general rise there, while the interior "low" had been pressed further north; rain had fallen again over the eastern half of the Union, as well as along the south coastal area; by the next morning, 25th, a slight fall in pressure had taken place in the south-west, with a slight rise in the east and south-east; the interior "low" had protruded practically to the south-west coast, forcing the isobars of the anticyclone out to sea in the west, while these same isobars had extended further to the north-east so as to cover Natal and portions of Portuguese East Africa; rain had fallen over a much more limited area than during the previous interval, being confined to the north, centre, and south of the Transvaal, the north and east of the Free State, Natal, Kaffraria, as well as the north-east and south-east of the Cape Province; by the 26th, a further extension southwards and eastwards of the low-pressure tongue had taken place, so that practically the whole country was under its influence; the western high pressure had been forced further west, while a fragment of a "high" lay over Natal and the east of the Cape Province; rain had fallen over almost the same area as on the previous day, being limited to the east and south in the Free State and to a slightly smaller portion of the east of the Cape; by the 27th, a general rise of pressure had taken place, the interior "low" having been forced a considerable distance into the northern interior, while high-pressure isobars encircled it on the west, south, and east; the rainfall was confined to the centre, west, south, and east of the Transvaal, and portions of Natal; on the morning of the 28th, it was seen that the high pressure, heading in apparently from the south-west, had intensified and was now covering the south-eastern half of the Union, while the low-pressure tongue had been forced more towards the north-west and west; rain had fallen over the same area as was the case on the preceding morning, but had extended over portion of Kaffraria and the coastal stations in the south-east of the Cape; on the 29th, pressure conditions were practically the same as on the 28th, and showers had fallen over the same districts with an extension into the south-east and north-east of the Cape and Bechuanaland; except for a small rise along the east, the pressure distribution on the 30th was almost exactly the same as on the previous day; showers had fallen since the previous morning over the southern half of the Transvaal, the Free State, Natal, and in the Cape Province had penetrated a short distance westwards, affecting part of the east-central Karroo and portions of the northern border and northern Karroo; by the 31st a slight fall in pressure, amounting to about one-tenth of an inch, had taken place in the east and south; the high pressure continued over the eastern half of the Union, while there were indications of the formation of a low-pressure tongue off the west coast; rain had affected a much smaller area, sporadic showers having fallen in portions of the extreme south, east, and south of the Transvaal, the north and north-east of the Orange Free State, Natal, the extreme east of Kaffraria, and a few stations in Bechuanaland and the northern Karroo.

Temperature.—The mean temperature over the Union during March was 68·4 degrees, or only 0·2 degree less than usual. This small departure from normal, however, represented a considerable difference from the usual conditions, the mean day temperature (76·9 degrees) being 3·0 degrees lower and the mean night temperature (60·0 degrees) being 2·7 degrees higher than the corresponding average values. The mean daily range (16·9 degrees) was therefore 5·7 degrees less than usual. Although a deficit in the mean maxima and a surplus in the mean minima were common to all Provinces, the mean temperature for the month varied considerably in the different Provinces in their relation to the normals, the *plus* or *minus* amounts depending on whether the deficits in the day temperatures were less or greater than the excesses of the night temperatures. Thus in the Transvaal, the mean day temperature (76·8 degrees) was 2·2 degrees lower than usual, whereas the mean night temperature (59·4 degrees) was 3·7 degrees higher than the average value, causing the mean monthly temperature (68·1 degrees) to be 0·8 degree in excess of its corresponding average. In the Cape Province, the mean of 69·0 degrees for this month was the same as usual, due to the deficit of 2·3 degrees in the mean maximum (77·8 degrees) practically neutralizing the excess cf 2·3 degrees in the mean minimum (60·2 degrees). In the Orange Free State, this month's mean value of 64·4 degrees was 0·7 degree cooler than usual, the shortage being due to deficit of 3·8 degrees in the mean day temperature (73·3 degrees) being 1·4 degree larger than the excess of 2·4 degrees in the mean night temperature (55·4 degrees). In Natal, the mean for March (70·4 degrees) was 2·1 degrees lower than usual, owing to the shortage of 6·5 degrees in the mean maximum (76·9 degrees) being larger than the surplus of 2·5 degrees in the mean minimum (63·9 degrees). Considering the values of this month's mean temperatures at the individual stations, that they were in excess of the normals over practically the whole of the Transvaal, the north and east of the Free State, the west, south-west, centre, and portions of the south-east of the Cape Province, but in defect of the normals in the north-east, centre, and south of the Orange Free State, in Natal, Bechuanaland, the more easterly portions of the Cape, as well as along the south coast. In the Transvaal, the excesses varied from 0·2 degree at Piet Retief to 2·4 degrees at Pietersburg, Klerksdorp (Strathmore), however, showing a deficit of 1·3 degree. In the Free State, Kroonstad and Ladybrand had small excesses of 0·5 degree and 0·1 degree respectively, while the deficits lay between 0·2 degree at Lindley and 2·4 degrees at Harrismith. In Natal, the mean temperatures were lower than usual by amounts varying from 0·4 degree at Hlabisa to 3·9 degrees at Dundee, but mostly exceeding 3 degrees. Over the Cape Province, the surplus amounts were mostly between 1 degree and 3 degrees, but varied from 0·4 degree at Bedford to 4·8 degrees at O'okiep. The deficits were generally between 1 degree and 2 degrees, but ranged from 0·3 degree at East London. At Sydney's Hope, in the south-east, the month's temperature was normal. At a great majority of stations the days were cooler and the nights warmer than usual. This statement, however, does not apply to stations in the west and south-west of the Cape Province, or to Pietersburg in the north and Johannesburg in the south of the Transvaal, where both days and nights were warmer than the average. The excesses in the day temperatures were less than a degree at two stations in the Transvaal, but were mostly about 3 degrees in the Cape Province, where they varied between 0·9 degree at Port Nolloth and 3·5 degrees at Wynberg, in the Cape Peninsula. In the Transvaal, the deficits in the mean maximum temperatures were greatest (3–5 degrees) in the south-west and south-east, but mostly between 1 degree and 2 degrees elsewhere ; they ranged from 0·8 degree at Nylstroom to 4·9 degrees at Piet Retief. In the Free State, days were generally cooler by 2–3 degrees, the deficits, however, ranging from 2·5 degrees at Kroonstad to 6·9 degrees at Harrismith. In Natal, the mean maxima were very much lower than the average, the deficits varying between 4·1 degrees at Empangeni and 10·1 degrees at Weenen. In the Cape Province, the deficits in the day temperatures were mostly between 3 and 6 degrees in the east, the northern border, and Bechuanaland, but fell to between 1 degree and 3 degrees along the south coast and to less than 1 degree over the interior plateau. The deficits ranged from 0·5 degree at Kenhardt to 6·7 degrees at Kingwilliamstown. Except at one or two stations in the south-east and south of the Cape Province, the mean minima or night temperatures were higher than usual throughout the Union. In the Transvaal, the excesses of the mean minima over normal were mostly between 3 and 5 degrees, but varied between 0·8 degree at Johannesburg (Observatory) and 5·3 degrees at Ermelo and Piet Retief; over the Free State, they ranged between 1·6 degree at Bethulie and 3·4 degrees at Kroonstad; in Natal, from 1·7 degree at Ladysmith to 4·0 degrees at Hlabisa; and over the Cape Province, where the surplus amounts were generally between 2 and 4 degrees, from 0·1 degree at Queenstown to 8·5 degrees at O'okiep. The mean warmest station during March was Komatipoort, with a temperature of 77·8 degrees, while the mean coolest was Harrismith, with 58·6 degrees, a difference of 19·2 degrees. The mean day temperatures varied between 93·9 degrees at Clanwilliam (Cape Province) and 65·6 degrees at Harrismith (Orange Free State), and the mean night temperatures from 70·0 degrees at Komatipoort (Transvaal Province) to 51·7 degrees at Harrismith. The warmest periods of the month were from 1st to 9th, 11th, 12th, 18th to 20th, 24th, 30th, and 31st, but principally on 1st and 2nd. The coolest nights were those on 1st, 7th, 11th, 15th to 19th, 22nd, 23rd, and 26th to 31st, most generally on the last two days. The extreme readings recorded were 105·0 degrees on the 5th and 20th at Clanwilliam and 40·0 degrees at Harrismith on the 31st, giving an extreme range of 65·0 degrees for March. Temperatures of 100 degrees or over were also registered at Rustenburg (101·0 degrees on 11th and 12th) and at Groot Drakenstein (102·5 degrees on the 4th). No *frost* was reported in March.

Precipitation.—Steady rains fell almost continuously throughout the month, giving rise to exceptionally large totals in all the Provinces. In fact, at many stations this month's rainfall was not only a record for March, but also for any month since the starting of observations. Notwithstanding the unusual largeness of the totals, the distribution was much less patchy than usual, the amounts decreasing fairly uniformly from the quantities of 20 inches or over in the east to " nil " over a narrow stretch of country in the west and south-west of the Cape Province. Quantities exceeding 40 inches occurred mostly along the eastern escarpment of the Transvaal and the central parts of Zululand. Amongst the largest totals were: 59·83 inches at Nongoma (Zululand); 51·18 inches at Kamhlabane Ranch (Division Barberton); 48·61 inches at Belvedere, 46·11 inches at Graskop, 44·72 inches at Lisbon-Berlin, all in the Division of Lydenburg; 45·84 inches at Entabeni and 42·27 inches at Broederstroom, both in the Zoutpansberg Division. On the other hand, it was stated that there had been an insufficiency of rainfall for crops over parts of the Ermelo, Carolina, and Middelburg Divisions. Compared with the normal the rainfall was considerably higher than usual over the greater part of the Union, particularly in Zululand, where the totals were from five to ten times the usual quantities. The area of subnormal precipitation was practically confined to the south-west part of Namaqualand, the west coastal areas, the western portion of the central Karroo, the southern Karroo, and the major portion of the south coastal area. *Thunderstorms* were prevalent throughout the month n Namaqualand, rain falling practically every day in some portion of the district, producing a marked improvement in the veld. A few cases of thunderstorms were also noted in the east of the Cape Province and in the Transvaal. The following picturesque account of a severe storm on the morning of the 10th at Elim was received from Mr. H. P. Mingard, our observer there, in reply to a request for further details :—

"Last week was very stormy, and we had some heavy downpours. One white man was drowned in the Mohoba River, four miles from here, his horse returning home dripping with water. The man's body was found next day in a large hole. On Tuesday, the 3rd inst., a storm came from the east, near Thakoma, following at great speed the foot of Pisangkop, and reaching here about 10 p.m. Several heavy electric discharges occurred, and, after a pause of about fifteen minutes, a very moderate discharge struck the doctor's house, fusing an old telephone wire and setting fire to the woodwork. The fire was soon extinguished, however. It is interesting to note that the hospital has been struck three times during the last few years. As to Tuesday's storm, the weather was very threatening all the previous afternoon (Monday, 9th inst.), and every one was complaining of nervous depression, caused, I believe, by the large amount of atmospheric electricity. At about 2 a m. on Tuesday, the 10th inst., we noticed the formation and rapid approach of three different thunderstorms : one from the west (Sand River Poort), one from the south-west (Woodbush), from which direction our thunderstorms usually come, and another which had formed on the top of Pisang Kop, about eight or ten miles away. This last one was very peculiar. The clouds were quite black, with some comical appendages, which appeared to be dragging on the ground and in a state of rapid revolution. Within a short time these three storms met on the area between Elim Hospital and Fort Edward. The lightning and thunder then became appalling, and occasionally the rain fell as though in solid sheets. The roaring of our nearest rivulets was audible from all sides ; it was a real deluge. This lasted up to 7.30 a.m., when I measured 9 inches of rain ; the tail of the storm between 7.30 a.m. and 9 a.m. gave another 0·45 inch.

"It is perhaps big talk to say that millions of tons of arable soil were washed away, but it was awful to see the mealie crops on the slopes. Large dongas were cut out in places and the plants carried away, leaving stony watercourses in the fields. These are the main facts, and I can positively assert that never before, in the last fifty years, has such a volume of water been seen in Klein Spelonken ; when I arrived here in 1882 there were no signs of the formation of ravines or sand deposits from recent flooding."

Some *hail* was reported in the Rustenburg Division at the beginning of the month, but little or no damage was done. Over south-west the rainfall was mostly between 3 and 6 inches, increasing eastwards in practically narrow parallel strips from half an inch or less on the coast. The actual totals varied from 0·06 inch at Swakopmund to 11·81 inches at Rietfontein, in the north-east. With the exception of Aus, in the south, and Swakopmund, on the coast, where there were shortages of 0·12 inch or 16 per cent. and 0·03 inch or 33 per cent. respectively, the totals were considerably in excess of normal, varying from 0·42 inch or 36 per cent. at Hierachabis to 7·82 inches or 196 per cent. at Rietfontein. The accumulated rainfall for the first three months of 1925 were mostly above the corresponding averages, the exceptional areas being confined to portions of the east of the Transvaal high veld, the north and north-west of the Orange Free State, portions of the south-east, the central, and southern Karroos, the south coast, the south-west and the west of the northern border in the Cape Province. In the Transvaal, deficits of 2·14 inches or 18 per cent. and 2·84 inches or 23 per cent. were reported from Bethal and Ermelo respectively. The surplus amounts were generally between 1 inch and 3 inches over the central portions, between 3 and 5 inches in the south-west, 4 and 6 inches in the south-east, and generally between 10 and 20 inches in the east and north-east. The actual excesses varied between 0·33 inch or 4 per cent. at Claremont, in the north-west, to 23·65 inches or 95 per cent. at Pigeonhole, in the Zoutpansberg. In the Free State, small deficits of 0·95 inch or 8 per cent. and 0·57 inch or 6 per cent. occurred at Kroonstad and Boshof respectively. Excess amounts were experienced elsewhere, varying from 0·08 inch or less than 1 per cent. at Bloemfontein to 5·94 inches or 45 per cent. at Harrismith. Large surplus amounts, mostly over 10 inches, were general in Natal, but ranged from 2·14 inch or 17 per cent. at Weenen to 42·82 inches or 244 per cent. at Hlabisa. In the Cape Province, the excesses over normal varied considerably in amount, being mostly between 2 and 4 inches in the northern interior, 4–7 inches in the east, but mostly less than 2 inches elsewhere ; the surplus amounts ranged from 0·51 inch or 72 per cent. at Clanwilliam to 7·38 inches or 78 per cent. at Aliwal North. The deficits in the southern portion of the Cape Province were between 1 inch and 2 inches, but varied over the country from 0·28 inch or 9 per cent. at Kenhardt, on the northern border, to 2·62 inches or 53 per cent. at Driefontein (French Hoek), in the south-west. In South-West Africa, a shortage in the totals for the first quarter of this year was confined to Rehoboth, in the centre of the territory, where the aggregate amount of 5·90 inches was 2·21 inches or 27 per cent. less than usual. Over the rest of the country the accumulated amounts were in excess of the average, generally by 3–6 inches inland, but by only a few tenths of an inch on the coast ; these excesses lay between 0·19 inch or 633 per cent. at Luderitz Bay to 11·90 inches or 83 per cent. at Rietfontein, in the north.

The gross totals for the nine months commencing 1st July of the preceding year showed practically the same relative distribution as for the first three months of the current year, viz., an excess over the greater part of the Union, with the exception of the east of the Transvaal high veld, portion of the south-east of the Cape Province, the central and southern Karroos, the south and west coastal districts of the Cape Province. In the Transvaal, the excess amounts were greatest (between 10 and 30 inches) in the east and north-east and part of the south-east, and least (mostly 3–4 inches) in the more central portions. These excesses varied between 0·63 inch or 2 per cent. at Johannesburg (Observatory) to 30·38 inches or 69 per cent. at Pigeonhole (Division Zoutpansberg). Deficits of 0·70 inch or 3 per cent. and 3·42 inches or 12 per cent. occurred at Bethal and Ermelo respectively. In the Orange Free State, a surplus was common to all stations, being least (about 2 inches) in the west and centre, but much greater (6–13 inches) in the north, east, and south ; these excesses lay between 1·88 inch or 11 per cent. at Boshof, in the west, and 13·13 inches or 54 per cent. at Ladybrand, in the east. In Natal, the excesses of these nine months' rainfall over the averages were everywhere very large, mostly between 10 and 20 inches, but varying from 8·53 inches or 34 per cent. at Weenen to 46·30 inches or 120 per cent. at Hlabisa. In the Cape Province, the excesses were greatest (4–7 inches) in Bechuanaland, the northern border, and the north-east, and generally between 1 inch and 2 inches elsewhere ; they ranged, however, from 0·76 inch at Calv nia and Hanover, where they represented 15 per cent. and 7 per cent. respectively of the normals, to 7·23 inches or 42 per cent. at Aliwal North. The deficits were greatest (4–7 inches) in the south-east and south-west, mostly between 1 inch and 3 inches in the south, and generally small (1 inch or less) in the west coastal area ; they ranged from 0·04 inch or less than 1 per cent. at George to 7·57 inches or 34 per cent. at Grahamstown, in the south-east. In South-West · Africa, deficits occurred in small patches in the extreme south-east, on the south-west coast, in the centre, and the north, but generally the records for the nine months showed *plus* amounts, varying considerably over the different parts of the country. The deficits were mostly small, only a few tenths of an inch, but varying between 0·06 inch or 21 per cent. at Luderitz Bay and 4·27 inches or 40 per cent. at

Rehoboth. The excesses ranged between 0·17 inch or 29 per cent. at Swakopmund to 12·77 inches or 196 per cent. at Voigtsgrund, but were mostly between 4 and 6 inches.

State of Country.—Transvaal: Continuously cloudy and sunless days, cool weather, and a superabundance of rain spread over an unusually large number of days reacted adversely on many crops, particularly cotton and ground-nuts, in a number of districts, and destroyed the hopes that had been entertained by many of a record season. Thus in the east of the Zoutpansberg highlands, in Lydenburg and Piet Retief Districts, as also in Swaziland, the cotton crop was seriously damaged; rust had made its appearance at Pigeonhole (New Agatha), and the flowers were dropping off; the Jassid fly had attacked the cotton on some farms in the Barberton District, while about one-third of this crop was stated to have been ruined in the Piet Retief cotton area. On the other hand, although in the Rustenburg Division growth had been retarded and cotton picking had been slowed up in parts, this crop had suffered but little on the whole, and large yields were anticipated should April prove a dry month. In the Waterberg District cotton had benefited considerably by the rain and was in full bloom again, while the caterpillars had disappeared. In the Zoutpansberg, Pietersburg, and Waterberg areas monkey-nuts had suffered to a certain extent, being harvested under unfavourable conditions; the nuts were considerably discoloured and rendered mouldy in some instances, owing to the continued damp weather. Generally speaking, these rains were too late to benefit the earlier-planted mealies which had suffered from the partial drought of the two previous months, but the later-planted maize had improved considerably under the moist conditions. In part of the Rustenburg Division a good deal of tobacco crop was drowned by the excessive rains, while mealies and potatoes were damaged in portion of the Lichtenburg Division from the same cause. In the Standerton District many standing grass crops were ruined owing to over-ripeness, and cut crops spoilt by lying exposed to the rain: mealies were sprouting in the cobs, and oats and teff growing in the stacks. In the Wakkerstroom District continuous drizzle had ruined much of the grain, as farmers had no opportunity of gathering the crops. In parts of the Pretoria District crops were also being adversely affected by the continuous rains. Although mealies and potatoes were damaged to a certain extent in the Division of Lichtenburg, crops were generally good in the south-west, being the best for years past in some parts. In marked contrast to these unusually moist conditions was the drought which prevailed in parts of the Middelburg, Carolina, and Ermelo Divisions, in the south-east. At Mooivlei, in the last of these divisions, the crops were dying and teff was an absolute failure, owing to an absence of sufficient rain. In the more favoured areas the prospects for winter crops were good and ploughing of new lands had already started. The veld generally was in good condition and grazing assured for winter, except in those parts of the south-east already mentioned. Cattle were generally looking well, particularly in the Bloemhof Division; but were only fair in parts of Middelburg and were reported as in wretched condition at Ermelo. Horse-sickness was prevalent in many districts, e.g. Bloemhof, Waterberg, Rustenburg, Standerton, and Ermelo, particularly in the Springbok Flats, where many losses were reported, even of immunized and salted animals; also in Ermelo, where quite a number of both horses and mules died from this cause.

Orange Free State: Atmospheric conditions during the month were practically the same over the Free State as in the greater part of the Transvaal, being exceptionally cloudy and wet, with an absence of sunshine. The unusual amount of moisture was detrimental to the hay and other forage crops generally, whilst sunny weather was required to bring on the maize. A considerable amount of damage was caused by floods, owing to rivers overflowing their banks, bursting of dams, etc. The veld and stock generally were in excellent condition, although horse-sickness and blue-tongue were fairly serious in some districts, particularly Fauresmith and part of Kroonstad; some losses in stock were also occasioned by floods; stock had a set-back in the Division of Harrismith.

Natal: The persistent rain, lasting practically without intermission between three and four weeks together, with the large amounts approaching a season's rainfall in some instances, caused a great deal of damage to standing, ripe, and cut crops; the former germinating on the stalks in many places and the latter rotting on the ground. Even wattle bark, which could not be transported to the factory, was rotting in the plantations. Additional damage was caused by floods, washing produce downstream, and even wiping out native gardens on the banks of rivers, as on the Umsunduzi. At Thornbeek about 50 per cent. of the cotton which was in the early picking stage was stated to have been lost. Although cattle were reported to be generally healthy, the yield of milk and cream at Greytown was said to have diminished considerably, much being undelivered owing to transport difficulties. East Coast fever was stated to be prevalent in Eshowe, in Zululand. Horse-sickness was prevalent to a slight extent in the neighbourhood of Nottingham Road, but was very severe in Dundee, Mid-Illovo, and Ladysmith; while sheep, donkeys, and goats were dying from exposure to the excessive dampness at Glückstadt and Eshowe; blue-tongue was bad amongst sheep at Nottingham Road and Bluebank (Ladysmith).

Cape Province: Unusually abundant steady soaking rains, constituting or approaching record amounts for March in many places, broke the drought of the preceding months in the east, and brought the veld into a better condition than for several years past, both in the Cape Province and Bechuanaland, so that, provided early frost did not occur, good pasturage during winter was assured. In the Knysna, Riversdale, and Caledon Districts the rainfall was much more partial in distribution, so that portions were still suffering from severe drought. In Bechuanaland, a series of thunderstorms of almost daily occurrence brought on the grass, so that at the end of the month it was about a foot in height; flying locusts were, however, threatening to destroy the veld, and causing much anxiety to farmers on this account. In the District of Mount Currie the veld was rank in places and deteriorating on the flats, but was still good on the higher ground, while hay-making was impossible. In Elliot and Mount Fletcher crops were in excellent condition, but were turning yellow at Sandflats (Mount Currie) owing to excess of moisture. Maize was promising in the Hay Division, but early frosts were feared; whilst in Cathcart the same crop, although recovered from the drought, was still backward; and there were hopes of a fair crop of mealies in Stutterheim District. A considerable amount of damage was caused to gardens and crops by floods at Upington, Kakamas, as well as at Douglas and Bucklands. A heavy fall of 2·07 inches on the 7th at Melton Wold (Victoria West Division) damaged the lucerne fields to a considerable extent, drowned poultry, etc., causing an approximate loss of one thousand pounds (£1,000). Ploughing for winter crops had been started in a number of districts. Unusually hot, dry and rather windy weather prevailed over the south-west, and although necessitating the cartage of water for stock in parts of the Paarl District, was eminently favourable for raisin-making and fruit-drying. "Ryspers" were destroying the Karroo bush in De Aar. Cattle were generally in good condition owing to the improved state of the veld, but blue-tongue was making its appearance in Hanover, Barkly West, De Aar, Venterstad, considerable losses occurring in the Division of Barkly West, where foot-rot was also rampant amongst the sheep; while a few were affected with fever in Stutterheim. Horse-sickness was reported as being prevalent in Hanover, De Aar, Barkly West, and Venterstad Divisions, in the last of which many animals were lost from this cause, as well as in Bechuanaland.

Rivers and Water Supply.—As a result of excessive rains in the greater part of the Transvaal, most of the spruits and rivers were running strong. and practically all dams, vleis, and kuils were filled, thus ensuring the water supply for winter. A great deal of damage, however, was caused to lands. roads, railways, bridges, etc., both directly by rains and indirectly by the rivers overflowing their banks. At Bloemhof the Vaal River overflowed its banks, cutting off communication with Hoopstad for several days, as the ponts were unworkable. At Arbury (Zoutpansdrift), in the Rustenburg Division, Rossouw Spruit to the west was in flood on the 12th, filling the river, while on the 24th, Kree Spruit came down, raising the river 12 feet and preventing any crossing. From Rustenburg and Pietersburg it was reported that all rivers and streams were running strong, and all dams, etc., full from Myrthly (Division Standerton) and Bralbin (Rustenburg Division). In the Waterberg, Zoutpansberg, Lydenburg, and Wakkerstroom Divisions, and at Hlatikulu, in Swaziland, the roads were washed away in parts or rendered otherwise practically impassable. At White River practically continuous rain and drizzle between the 10th and 26th flooded the river, which rose rapidly to a great height ; the canal overflowed at the spillways and several road drifts, causing washaways in the citrus groves. Several bridges were also washed away. At Altydmooi (Zoutpansberg Division) the Letaba River was in flood several times, causing damage to the lands. A washaway occurred on the Tuinplaats Railway on the 27th. In the Lydenburg District mining operations were interfered with, damage caused to the mines, and swollen creeks often held up road traffic, mails, etc. Although no reports were received from the Orange Free State as to any serious interference with roads, a considerable amount of damage was caused to crops, lands, fences, etc., in all parts. In the Fauresmith Division two of the biggest dams were reported to have been broken. On the 15th the Wilge River overflowed its banks at Groenvlei (Frankfort Division), damaging maize and fodder crops to a considerable extent. As the result of the rainfall on the 21st, which is described as the heaviest experienced in the District of Hoopstad (4 inches in fourteen hours at Rietvlei), the Vet River was stated to have risen to a greater height than at any time during the previous twenty to thirty years, washing away houses, cattle, etc., and damaging the bridge at Hoopstad. The Valsch River at Kroonstad had not ceased to flow since the 8th, at times being 6½ feet above normal level. The most serious effects of the abnormal rains during this month seem to have been exper enced in Zululand, where the total of 45·41 inches on twenty-eight days at Hlabisa was believed to be a record both for amount and duration. Roads were washed away, postal service disorganized, telephone wires down, while immense losses in cattle, goats, sheep, donkeys, and crops, as well as of human life, occurred ; farmers at Hluhluwe were on the point of starvation, owing to shortages in stocks. Gardens were wiped out, roads damaged, and drifts rendered impassable by floods in the Umsunduzi River. Roads and bridges in Eshowe Division were badly damaged. The Tugela River rose to the highest level known, sweeping away crops, houses, etc., and at Mfongosi landslides occurred forming ravines. At Ladysmith the Klip River was well above the normal summer-level during practically the whole month, and on three occasions flooded the town, damaging roads, buildings, etc. ; the heaviest fall here was 5·35 inches on the night of the 21st, occurring in practically five hours. At Glückstadt all trade and communication was at a standstill owing to the spruits and rivers being in flood, while several bridges had collapsed. The Mooi River was higher than it had been for thirty-five years. Some natives were washed down the Illovo River and drowned. The Umzimkulu came down on the night of the 14th and 15th, pumpkins, trees, etc., floating out to sea at Port Shepstone. The neighbourhoods of Hillcrest and Paddock suffered to a much less extent than elsewhere from the effects of floods. Many rivers in the east and north-east of the Cape Province were in flood during the month; pans in the northern Karroo were filled and springs were once more running after having ceased to do so for several years. At Sydney-on-Vaal the river attained the highest level since 1907, and continued to maintain a high level for an extended period, this being the first occasion for many years that the Vaal had continued to maintain its volume for more than about a week. At Douglas the Vaal rose 24⅔ feet above low water-level and portions of the agricultural erven were submerged. At Bucklands two-thirds of the settlement were submerged owing to floods in the Orange and Vaal Rivers reaching the junction simultaneously. At Prieska the Orange River was very high all month, rising to 45 feet on the 24th to 26th. This was not a record, as the river was said to have risen a foot or so higher in March, 1881, and reached almost the same height in 1898 as in 1925. From Louisvale it was reported that this month's was the highest flood on record in the Orange River valley; many irrigation works and settlements being damaged beyond repair; no deaths from drowning were reported, but the losses of small stock were large. At Upington the Orange River rose 11 feet above the railway bridge, while there were heavy washaways on the railway line and considerable damage done to gardens and crops generally along the banks. At Kakamas many houses were submerged by the flood in the Orange River and collapsed, while mealie and bean crops and orchards were destroyed. At Danielskuil (Division Barkly West) the excessive rains caused a large accumulation of water in the pans. At Kalamari, in Bechuanaland, the river was full. At Petrusville (Division Philipstown), as the result of continuous rain from 7th to 10th, the dam above the town was overflowing and running out; with an intensification of the rain on the 10th the dam broke its banks. At Vaalbank (Division Venterstad) several dams were damaged in consequence of the overflow of the Brock Spruit. At Damplaats (Division Albert) an old fountain which had been dry for ages had started running again; many dams were broken in the district. At Lauriston (Barkly East Division) a continuous downpour of three days' duration from 7th to 9th, and again of five-and-a-half days between the 20th and 25th, brought all rivers down in flood, holding up all traffic, including the mail service, causing a great deal of damage everywhere. Stacks were carried off lands on the banks, fencing torn down, etc., while the Kraai River railway bridge was washed away. The amount of water in the river was stated to have been greater than at any time during the last forty-six years. At Mount Fletcher all rivers were in flood the greater part of the month, while the Umzimvubu River, in Mount Currie Division, overflowed its banks for days. At Kokstad the abnormal rains flooded the rivers and hampered the railway service. The Bolotwa River at Contest, in the Queenstown Division, with a catchment of about 65 square miles, had more than 6 feet of water running into it. The filling of the Bongolo Reservoir assured the water supply of Queenstown. At Cathcart springs that had been dry for two years started flowing again. So much water had not been seen in the Steynsburg Division for thirty years. At Melton Wold, in Victoria West, a very heavy rain on the 7th burst the dam, completely washed away the roads, drowned poultry, and badly damaged the lucerne fields, the total loss being approximately one thousand pounds (£1,000). At Port Alfred, in the Division of Bathurst, and at Snyderfontein, in the Beaufort West Division, all dams were filled and water-holes replenished. At Chelmsford (Division Aberdeen), however, the dams were stated to have hardly any water, so that a great deal more rain was required there for winter. At Uitenhage the river was very low owing to the absence of heavy rains to cause much run-off. In Knysna Division water was getting scarce, whilst in the usually well-watered Division of Paarl dams were drying up, streams in some instances were reduced to mere trickles, and many farmers were compelled to cart water for stock. In Basutoland, the exceptionally heavy rains flooded the country, so that spruits were overflowing and traffic impeded.

OBSERVERS' NOTES FOR MARCH, 1925.

TRANSVAAL.

Rustenburg.—Steady rains have fallen throughout this month. Tobacco crops damaged, and a great deal of this crop has been drowned. Rivers and streams are running strong. Grazing everywhere and cattle in good condition. Cotton, maize and kaffir corn crops excellent. Good prospects for winter crops. Rainfall: 7·98 inches on twenty-three days.—A. Streatfield.

Pigeonhole—New Agatha (*Pietersburg*).—Rains too continuous: heavy damage to cotton crops, some fields completely destroyed by rust, and flowers dropping off. Some damage to mealies and monkey-nuts, but not excessive. Rainfall: 26·30 inches on twenty-six days.—Jno. McCallum.

Bloemhof.—The best rains we have had in the western Transvaal since 1917. The Vaal River overflowed its banks, so that traffic was cut off between Bloemhof and Hoopstad for a few days as ponts could not work. Horse-sickness prevalent. No locusts seen. Rainfall: 8·29 inches on ten days.—C. J. van Tonder.

Pietersburg.—Copious gentle rains in town and immediate vicinity. Heavy downpours doing a deal of damage to crops on farms near town. All spruits running strong. Veld assured for winter. Rainfall: 7·42 inches on eighteen days.—W. J. Frankleyne.

Piet Retief.—Severe rains during the month. Extensive damage reported from our cotton area; 33 per cent. of crops practically ruined. Rainfall in cotton area reported to be from 27 inches to 35 inches. Rainfall: 9·78 inches on twenty-two days.—J. Werner.

Barberton.—Very showery weather practically throughout the month. Very little thunder and lightning or high winds. In no case has the rain been abnormally heavy at this station, but heavy falls have been recorded in the district, in some cases quite close. The Jassid fly has attacked the cotton on some farms, favoured by the wet weather, and a fair amount of damage has been done. Rainfall: 11·62 inches on eighteen days.—Walter Grubb.

Pilgrims Rest.—The heaviest rainfall (25·19 inches on twenty-four days) for any one month on record. Mining operations in this district considerably hindered by rains, and transport of mails, passengers, and goods often held up owing to swollen creeks and bad condition of the roads.—E. M. Skea.

Bralbin (*Rustenburg*).—Weather this month has been cooler than usual and the rainfall greater. Rain fell in frequent heavy showers, which never lasted long; no hail. Lightning storms few and distant. Crops suffered very little from rain, as there was no flooding. Cotton picking has slowed up a week or so due to cooler and damper conditions. Practically all farms have commenced picking now. Mealies show excellent growth and high yield. Tobacco also very good. All dams full. Ploughing of new lands started. Rainfall: 6·90 inches on sixteen days.—R. C. S. McPherson.

Lichtenburg.—Excellent rains during the month. Crops in town and district good. Rainfall: 5·54 inches on eighteen days.—H. J. Swart.

White River (*Barberton*).—The month was exceptionally wet. From 10th to 26th was practically a continuous drizzle and rain. The river was flooded, rising very rapidly and high: the canal overflowed at the spillways and several road drifts, causing washaways in the orange groves. The rain this month caused a great deal of damage to crops, both citrus and cotton, and several bridges have been washed away. Rainfall: 18·41 inches on twenty days.—M. Lyall Soutter.

Kopje Alleen No. 1052 (*Waterberg*).—The longest spell of wet weather in any month since 1919. From the 7th to the 26th it rained every day with two exceptions (the 8th and 19th). The gauge at the house collected 9·72 inches on twenty days, while that at the lands read 11·20 inches on twenty-one days. Roads were almost impassable. A washaway occurred on the Tuinplaats Railway, near Bingley, on the 27th, passengers and mails being transhipped to a rail-trolly. The maize and cotton crops have been beneficially affected by the rain, and if no early frosts occur a fair return may be expected. Monkey-nuts, where harvesting had begun, have suffered severely. Owing to the recent rains and the earlier drought the crop in many cases is only from a quarter to a half of what it promised to be. Horse-sickness has been virulent on the Springbok Flats during the latter half of the month. Scores of valuable horses have died, even immunized and salted horses have succumbed.—J. Lyall Soutter.

Amatara (*Waterberg*).—Nice rains during the whole month, interspersed with bright sunshine. Rainfall: 6·78 inches on sixteen days.—A. R. Troye.

Carolina.—Exceptionally dry month, and rainfall far under the average for March, which here is about 5 inches. Very little sunshine. All through month dull and cloudy, with easterly winds. Horse-sickness was unusually severe, and hundreds have died over the district. Weather generally cool, and crops will be good in most places where drought was not too severe. Rainfall: 2·93 inches on sixteen days.—G. F. Mijnhardt.

Arbury (*Rustenburg*).—There has been much rain this month, which has retarded the cotton harvest. On the 12th, Rossouw Spruit to the west was in flood, filling the river: on the 24th, Kree Spruit came down and brought the river up about 12 feet, which prevented any crossing. Rainfall: 2·80 inches on seventeen days.—G. F. Mills.

Pomona Estates (*Pretoria*).—Wet, dull, and muggy weather prevailed throughout the month. No heavy storms. Crops suffering through continual wet weather. Rainfall: 5·86 inches on eighteen days.—E. A. Clark.

Wakkerstroom.—This has been a dismal month. It has been practically one continuous drizzle, chiefly from the east over the Drakensbergen. Much grain has been ruined, since many farmers had not the opportunity to gather same. Roads are in a shocking state. There has also been some loss of stock, especially after dipping. Rainfall: 8·17 inches on twenty-three days.—J. Cilliers.

Nooitgedacht No. 1739 (*Waterberg*).—The month has been notable for the persistence of cloud and threatening weather during the first four weeks. Although the rainfall was only moderate, the moist, cloudy weather has adversely affected the ground-nut crop, which has had to be harvested under unfavourable conditions. Other crops and cattle are looking well. No locusts. Rainfall: 4·46 inches on twenty days.—G. Gordon Brown.

Mosdene (*Waterberg*).—A cold month, with much drizzling rain and a record number of cloudy days. Although the rainfall was only 3·27 inches, as against a March average of 3·49 inches for the previous seven years, rain was registered on sixteen days, a number far in excess of any other year since records have been kept, besides which on many other days there were drizzles too light to register. The rainfall on the surrounding flats has been extremely variable, some farms receiving 6 and 7 inches, whilst others only a mile or two away 3 or 4 inches. The rains have greatly benefited mealie and cotton crops, but peanuts have suffered heavily from discoloration and mould, and many crops have been heavily depreciated.—Ernest E. Galpin.

Krugersdorp.—The month has been wet and sunless. The mean temperature was 63·4 degrees, or 2 degrees below the average for the past fifteen years. A spell of bright, sunny weather would now be beneficial to crops. The rainfall for March is a record since readings have been taken here. Rainfall: 10·25 inches on nineteen days, against an average of 4·32 inches during the past twenty-two years.—H. Sharp.

Gembokfontein (*Middelburg*).—Although 3·93 inches of rain fell at this station, farms a few miles distant experienced practically no rain. The weather was cloudy at the beginning and end of the month. Strong east winds were prevalent at times.—L. C. Skead.

West End Plantation (*Pretoria*).—Crops are looking well, and the growth of young trees has been wonderful this season. Rainfall: 6·80 inches on nineteen days.—W. H. Foster.

Experimental Farm, Transvaal University College (*Pretoria*).—Plenty of rain fell during the month, reviving the veld and also being of great benefit to the late plantings of maize, etc. The early plantings, however, suffered from drought to such an extent during January and February that in most cases only 50 per cent. yield may be expected. On this farm excessive and heavy downpours have done very little damage this season. Rainfall: 9·08 inches on nineteen days.—The Manager.

Groeneboom (*Rustenburg*).—Some hail fell in beginning of month during a shower, no or little damage being done. March passed with much clouded skies, constant precipitation in not too heavy showers well distributed over the month. Cattle and crops in excellent condition. Horse-sickness very prevalent. From cotton a big yield is expected if April brings nice dry weather, when bolls are expected to burst. Few insects in cotton and mealie crops. Some farmers have sown winter wheat, and good crops are expected if locusts keep away. Rainfall: 7·66 inches on sixteen days.—F. N. van Nouhuys.

Myrthley (*Standerton*).—Rainfall excessive, exceeding all records, doing damage to maize, oats, and hay crops. Too late to be of much benefit to crops, but filling all dams and kuils, ensuring season's water supply. Rainfall: 11·21 inches on sixteen days.—J. L. Ellis.

Reston (*Middelburg*).—Later mealies have improved. Veld good. Stock in fair condition. Rainfall: 4·50 inches on eleven days.—A. G. Parves.

Klipkopspruit (*Rustenburg*).—Rains have prevented the cotton crops in this area from maturing. Rainfall: 6·13 inches on seventeen days.—P. V. Hoffmann.

Waaikraal (*Rustenburg*).—Mealies look well, but are damaged by the drought during January and February. Rainfall: 7·29 inches on ten days.—W. Behrens.

Irenedale (*Standerton*).—Mealies growing pips in cobs. Oats and teff are growing in stacks. Horse-sickness prevalent. Rainfall: 7·66 inches on fifteen days.—E. von Musschenbrock.

Arcadia (*Standerton*).—Many standing grass crops ruined by over-ripeness, and the cut ones are spoiled by lying in the wet. Stock in good condition. Horse-sickness was rife in the beginning of the month, but has decreased. Rainfall: 7·78 inches on fourteen days.—E. G. Lampoort.

Mooigelegen (*Waterberg*).—Nuts lifted, discoloured by rain. Mealies: Big improvement. Cotton: Full bloom again, caterpillars disappeared. Rainfall: 5·51 inches on twenty days.—A. V. Maddocks.

Broederstroomdrift (*Zoutpansberg*).—Lots of damage done to monkey-nuts and cotton crops. Roads terrible. Rainfall: 23·80 inches on twenty-one days.—G. van Velden.

Poortje (*Bloemhof*).—Stock have never looked better, and crops are wonderful—the best seen for years. Rainfall: 8·87 inches on seventeen days.—N. Rose.

The Brook (*Ermelo*).—Quite a number of horses and transport mules died of horse-sickness. Rainfall: 11·44 inches on twenty-five days.—A. Stokes.

Ermelo (*Ermelo*).—Stock wretched. Rainfall: 3·94 inches on nine days.—A. M. Nicolson (Mrs.).

Mooivlei (*Ermelo*).—Drought very serious. Crops dying and teff an absolute failure. Rainfall: 4·11 inches on fifteen days.—G. T. Beveridge.

Delarey (*Lichtenburg*).—23rd, crops standing well after all the rains. Rainfall: 9·25 inches on eighteen days.—M. Michaelis.

Trekdrift (*Lichtenburg*).—The heavy rains have damaged the mealie and potato crops. Rainfall: 8·10 inches on eleven days.—W. J. S. Coetzee.

Alanglade (*Lydenburg*).—Great damage to mines and roads during the month. Rainfall: 25·66 inches on twenty-two days.—R. Barry.

Moddersprult (*Lydenburg*).—All cotton crops damaged by excessive rain, and prospects of a good yield are ruined. Rainfall: 32·05 inches on twenty days.—C. J. Wiggill.

Altydmooi (*Zoutpansberg*).—The river has been in flood several times this month, and lots of damage done to the lands. All stock looking well. Rainfall: 15·42 inches on twenty-one days.—A. L. Getliffe.

SWAZILAND.

Hlatikulu.—March has been a record month, having had 28·41 inches of rain on twenty-six days. The district has suffered considerably, especially the cotton and tobacco, as these crops were ready for reaping. Roads in the district have been completely washed away in parts. Rivers impassable for days. Sheep farmers are in from the high veld busy burning grass for winter grazing.—J. Pullen.

Matapa (*Swaziland*).—Only four days with little sunshine this month· Cotton crop ruined. Rainfall: 21·91 inches on twenty-five days.—A. Torrens·

Matendele (*Swaziland*).—A very bad month for all crops. Cotton especially suffered. Malaria prevalent. Stock in good condition. Rainfall: 14·41 inches on twenty days.—H. Parry.

ORANGE FREE STATE.

Kroonstad.—Rains of a highly beneficial nature. Parts of the district received an abnormal rainfall. From the 8th of the month the river has not ceased to flow, at times being 6½ feet above normal level. Crops look most promising for a record yield, but the absence of sunshine has had a detrimenta effect on the hay crop. Rainfall: 5·41 inches on sixteen days.—A. C. Mason

Lindley.—The wettest March for many years. Farmers cannot get into their lands on account of the ground being too wet. Teff and other forage cannot be saved. More sun is required for the mealie crop. Rainfall: 8·05 inches on seventeen days.—W. Murphy.

Groenvlei (Frankfort).—March has been an exceptionally wet month. On the 15th the Wilge River overflowed its banks, causing considerable damage to maize and fodder crops. To what extent the maize crop has suffered owing to the continuous wet and cloudy weather cannot be estimated, but no doubt exists that the percentage is considerable. Grub is very severe in all maize planted late in November. Horse-sickness and blue-tongue reported from most parts of the district. Grazing is very good, and all classes of stock in very good condition. Rainfall: 9·40 inches on seventeen days.—B. Stollreither.

Kappa (Bethlehem).—Very little sunshine during whole of the month. Crops are in danger through too much rain. Rainfall: 10·40 inches on fifteen days.—N. van Rensburg.

Hamilton Manor (Bethulie).—Heaviest rain we have had for years; done a lot of harm to lands and fences, etc. Rainfall: 11·53 inches on thirteen days.—H. E. Wilmot.

Myburgfontein (Bloemfontein).—Loss of stock by flood and blue-tongue Horse-sickness about. Rainfall: 10·29 inches on eighteen days.—D. van Niekerk.

Sterkstroom (Boshof).—Veld in very good condition. Wire-worm a little among some flocks. Cattle very good. Rainfall: 5·50 inches on ten days.—J. B. Moolman.

Slangfontein (Fauresmith).—Blue-tongue and horse-sickness fairly serious. Two of biggest dams broken. Much damage done to fences and fruit trees. Rainfall: 6·62 inches on thirteen days.—A. B. du Toit.

Stanleyvale (Harrismith).—Stock and crops put backwards. Hay-feed rotten. Rainfall: 12·91 inches on seventeen days.—G. C. Atkins.

Jamaica (Heilbron).—Crops are looking fine, only a little too much rain is complained of by most farmers, as mealies begin shooting out now from cobs again. Rainfall: 4·28 inches on eight days.—L. Moore.

Witkop (Kroonstad).—The tobacco crop suffered somewhat on account of the rains. Other crops excellent. Horse-sickness very bad. Farmers have inoculated sheep against blue-tongue; losses very small. Rainfall: 6·68 inches on fifteen days.—C. E. Smith.

Woudzicht (Vrede).—This month was bad for crops and stock. All crops reaped and still outside are rotting, while those not reaped are overripe and getting destroyed by rain. Several cases of horse-sickness and blue-tongue. Rainfall: 15·38 inches on twenty-one days.—J. N. Köhler.

Rietvlei (Hoopstad).—The rainfall on 21st March (4·00 inches in fourteen hours) is the heaviest ever experienced in this district. The Vet River is fuller than it has been for twenty or thirty years back. Houses and cattle swept away. Bridge at Hoopstad damaged. Rainfall: 9·13 inches on eleven days.—J. E. J. van Rensburg.

NATAL.

Hlabisa.—Duration of rain and rainfall believed to be a record. Immense losses in cattle, goats, sheep, donkeys, and human life. Crops ruined and roads washed away. Post disorganized, telephone lines down. Farmers at Hluhluwe on point of starvation. Position here very serious owing to shortages in stocks. Rainfall: 45·41 inches on twenty-eight days.—Ernest E. Redgrove.

Ladysmith.—During the month 16·35 inches of rain fell on twenty-five days. So far as the records here show this is the heaviest fall ever experienced in Ladysmith during any one month. Crops in low-lying lands and heavy soil generally are rotting owing to the ground becoming water-logged. There has been very little sunshine during the month, and a few weeks of sunny weather are badly needed. The Klip River has been well over the normal summer level during practically the whole month, and has on three occasions flooded part of the town, doing considerable damage to roads, buildings, fences, etc. It is impossible to estimate the damage done, as many of the buildings are still saturated, and it is not until the drying-out process commences that the greater part of the damage to buildings will become apparent. Roads throughout the district have suffered considerably and are in a very bad state, being well-nigh impassable in many places. The heaviest fall of rain during the month was on the night of the 21st, when 5·35 inches fell in approximately five hours.—D. A. R. Leathern.

Stanger.—The Tugela River, sixteen miles north of Stanger, came down in flood several feet higher than it has ever been known to rise before. Rainfall: 24·50 inches on twenty days.—Cecil C. Foss.

Dundee.—A most remarkable month of rain and dull weather; in different parts of the district the fall has been much heavier than in town. Horse-sickness reported as bad owing to dull, wet weather, and all crops suffering from overmuch moisture. In one case where early mealies had been reaped and left outside they rotted and grew on cobs. This is haymaking month, but nothing can be done. The air has a wintry feel night and morning. My nearest recorded rainfall for March during the past twenty years is 9·67 inches for March, 1920, and the weather was colder than this month. Rainfall: 10·27 inches on twenty-three days.—West Thorrold.

Nottingham Road.—Day after day of soft rain. River flooded, higher than it has been for thirty-five years. Hay damaged and mealies souring on the cobs. Cattle healthy. A little horse-sickness and a lot of blue-tongue in sheep. Rainfall: 10·81 inches on twenty-four days.—Miss E. Smythe.

Hillary.—Rainfall, 17·34 inches on twenty-three days, a record for March since 1908, when records were commenced. Total rainfall only exceeded in 1913, when 19·49 inches were recorded. Mean minimum temperature, 67·8 degrees, highest ever recorded for March; likewise grass minimum mean. Hours of sunshine lowest ever recorded for this month.—H. A. Thorpe.

Cape St. Lucia.—Owing to the heavy rains and flooding of the Umzinduzi River, all native gardens on the banks of the river have been wiped out. Considerable damage has been done to roads and drifts, some of which have become impassable. Rainfall: 33·04 inches on twenty-four days.—J. Murphy.

Greytown.—An extraordinary and, I am afraid, a disastrous month. An outstanding feature of the rain period—6th to 29th—was the absence of thunder and the mildness of temperature. Grave fears are expressed as to the effects of the continued humidity on crops. All areas of beans, mealies, and kaffir corn germinating on the plants, and wattle bark rotting in the plantations. Milk and cream yields sadly diminished, and much of the latter not delivered owing to transport difficulties. Rainfall: 15·78 inches on twenty-six days.—J. M. Handley.

Mid-Illovo.—Abnormal rainfall, 21·00 inches on twenty-three days. Heaviest rainfall (3·45 inches) on afternoon and night of 9th. Heaviest March rainfall since March, 1913, when 24·22 inches were recorded. Mealie crop seriously affected. Horse-sickness exceptionally bad in district. Natives have been washed down the Illovo River and drowned.—Lt.-Col. J. W. V. Montgomery, C.M.G., D.S.O.

Paddock.—Although we have had an excessive amount of rain we have not suffered from the floods as they have in other parts. The wattle farmers have been hit, inasmuch as they have not been able to transport the bark to the factory owing to condition of roads. Rainfall: 12·11 inches on seventeen days. —G. Victor Merriman.

Port Shepstone.—A wet month. The Umzimkulu River came down in flood during the nights of the 14th and 15th, and judging by the great number of pumpkins, trees, etc., floating out to sea, it must have been fairly high some distance inland. Rainfall: 13·96 inches on nineteen days.—E. K. Andreason.

Hillcrest.—After the 8th an exceptional continuance of mists and rains set in, and continued almost without interruption until the 28th, when a break commenced. The mists and rains continued from whichever quarter the winds blew, but in the first place seem to have come up from the south and east. No violent floods or flood damage have taken place in the immediate vicinity, and at no time was there an exceptional heavy fall of rain in a short period. Rainfall: 23·50 inches on twenty-five days.—T. Dawson Clothier.

Belmont (Eshowe).—Crops, fields, roads, bridges, etc., badly damaged by floods. Numerous deaths among donkeys from exposure. East Coast fever prevalent in the district just now. Rainfall: 33·31 inches on twenty-seven days.—W. F. E. Leathern.

Bluebank.—Crops suffered very much owing to excessive rain and floods. Blue-tongue and horse-sickness very bad. Rainfall: 10·30 inches on twenty-two days.—T. N. Niland.

Mfongosi.—Tugela River highest known, swept off crops, houses, etc. Rains have seriously damaged growing crops, which are rotting on stems. Landslides—ravines formed. Considerable loss among small stock. Rainfall: 15·31 inches on twenty-five days.—W. E. Jones.

Thorn Creek.—Floods and great damage to crops—at least 50 per cent. loss on cotton which was in early picking stage. Rainfall: 29·12 inches on eighteen days.—S. W. Rutherford.

Summerford (Ixopo).—Rainfall has beaten all records; crops and sheep have suffered. The feature of this extraordinary rainfall was its steady persistence, luckily at no time torrential. Rainfall: 15·24 inches on twenty-one days.—D. Campbell, J.P.

Glückstadt (Vryheid).—Spruits and rivers flooded; all trade and communication is at a standstill. Several buildings collapsed. Great damage to ripening crops, beans, maize, potatoes, and peas germinating in pods. Rust in maize fields. Sheep, goats, and donkeys dying through excessive rain. Rainfall: 18·48 inches on twenty-three days.—F. W. J. Schumann.

Rongpoort.—Extraordinary and record month for rain. Water oozing out of veld everywhere. Crops suffering from too much rain, and need more sun. Rainfall: 10·34 inches on twenty-two days.—J. H. Bartholomew.

CAPE PROVINCE.

Queenstown.—The rainfall for March has only been exceeded once in the last fifty-two years, in 1879, when 7·54 inches were recorded. A month of steady soaking rains. No storms to cause washaways. Rainfall: 7·08 inches on eighteen days.—H. Holley.

Kenhardt.—The rainfall in the district has certainly been more plentiful, but authentic reports are not available. Locusts have put in an appearance, and horse-sickness is prevalent. Rainfall: 2·22 inches on five days.—R. Seydell.

Bedford.—The breaking of the drought has caused a general feeling of optimism, but it is hoped that winter may be delayed to enable the grass to harden so as to resist frost. As a result of late rains following the drought, numerous cases of horse-sickness are reported. Rainfall: 6·14 inches on twenty-two days.—T. C. Hall.

Graaff-Reinet (Convent).—Good soaking rains and frequent deposits from mist were the leading features of this month. The country is looking beautifully green. Winds variable; not strong. Rainfall: 4·36 inches on twelve days.—The Mother Superior.

Kokstad.—Abnormal rains, rivers flooded, railway service hampered. Rainfall: 9·68 inches on twenty days.—H. D. Coyte.

Somerset East.—Rains, mostly soft and soaking, fell on seventeen days, totalling 4·35 inches. The relative humidity of the air, especially during the last fortnight, was unusually high, so that little evaporation took place. Given normal April rainfall and an absence of early frost, the veld should be excellent for the coming winter.—C. Harris.

Kimberley.—Nice rains during month. Everything looking well. Nights getting a little cooler. Rainfall: 5·59 inches on twelve days.—C. H. Dowler.

Carnarvon.—Rains generally of the soft, soaking variety. Countryside in splendid condition. Rainfall: 4·43 inches on eight days.—A. P. Malherbe.

Vryburg.—Veld exceptionally good and green. Stock now in good condition. Rainfall a record. Winter conditions appear to be coming in fast. Rainfall: 8·54 inches on sixteen days.—Sergt. H. White.

Umtata.—Mostly continuous drizzling rain, with sky completely overcast and no wind. Wettest March for at least twenty-five years, previous records being 9·01 inches in March, 1921, and 5·86 inches in March, 1916. Air mild, except for first week, which was very hot and sultry. Rainfall: 9·43 inches on twenty-one days.—P. Hackett.

Uitenhage.—The rainfall this month has relieved the drought; the rivers are yet very low, as no heavy rain has fallen to cause much run-off. Rainfall: 2·04 inches on thirteen days.—H. Inggs.

Lovedale.—Abundant steady rain. Uniform temperature. Little wind. Much dew, some mist. Veld excellent, but soil not soaked to great depth. Horse-sickness in district towards end of month. Rainfall: 4·65 inches on fifteen days.—Charles A. Pilson.

Prieska.—Barometer high throughout month, rising before and during rain. Gentle winds from north-east, east, and south-east, with calm afternoons and evenings; north-west winds almost absent. Air very moist all month, unlike Karroo air. Very heavy and general rains early in month, fine after 11th, but working up for rain during last week, local showers and slight thunder. Orange River very high all month, rising to 45 feet, 24th to 26th. This is not quite a record, as it is said to have risen 1 foot or so higher in March, 1881. In 1898 it was almost the same height as 1925. Horse-sickness very severe over district. Heavy hatchings of locusts in district end of month. Rainfall: 6·99 inches on eight days.—E. G. Bryant.

Van Ryneveld's Pass, Graaff-Reinet.—After showing promise of rain all last month, the weather settled in for steady rain during March. Drought broken, and veld looking beautifully green. Rainfall: 3·28 inches on twelve days.—The Engineer.

Storms River.—A fair amount of rain was registered and fine weather was experienced, but towards the close of the month no rain fell. Rainfall: 2·92 inches on eight days.—H. Meyer.

Dunghye Park (Caledon).—A number of windy days of south-east breezes, and several damp, cloudy oppressive days. In parts of this district heavy rains—in patches—were reported. Rainfall: 0·45 inch on six days.—J. J. de Villiers.

Upington.—Splendid rains for March. The veld is in a very good condition. Heavy washaways on railway lines. Orange River in flood, risen to 11 feet over railway bridge. Heavy damage to gardens and crops generally along river. Rainfall: 6·09 inches on six days.—F. W. J. Schmidt.

Rietfontein (Aliwal North).—Wettest March on record since 1898. Rainfall: 10·14 inches on fourteen days.—A. G. Smith.

Nelspoort (Beaufort West).—Rain in early part of month. Veld excellent towards end of month, and all kopjes green. The country looks better than at any time during the previous twelve months. Rainfall: 3·73 inches on six days.—Dr. P. Allen.

Kakamas.—Mealie and bean crops and also orchards destroyed by floods. Many houses were also submerged and collapsed. Horse-sickness very bad during the month; about 100 horses died locally. Rainfall: 2·24 inches on five days.—M. J. Oosthiuzen.

Mount Fletcher.—Good, soaking rains, which constituted a record for the month—8·78 inches on twenty days. All the rivers have been in flood the greater part of the month. Veld nice and green. Cattle in splendid condition. Crops and forage in abundance.—J. McDougall.

Cathcart.—Good rains have fallen during the month; springs that have been dry for two years are again flowing. Rainfall: 8·97 inches on nineteen days.—C. E. Whibley.

Sandflats (Mount Currie).—Live stock: Condition of cattle good. Sheep suffered from too much rain. Blue-tongue in sheep not so prevalent towards end of month. Veld: Very rank in places owing to too much rain, and deteriorating now on flats. Still good on higher ground. Crops: Drowned and yellowing owing to too much rain. Haymaking at a discount owing to fields being too wet to enter. Quality will be poor. A lot damaged by rain. Silage-making started. Umzimvubu River has been over its banks for days. Temperature: Mean maximum, 69·6 degrees; mean minimum, 54·1 degrees; extreme maximum, 82·5 degrees on 5th; extreme minimum, 45·0 degrees on 31st. Rainfall: 8·16 inches on seventeen days.—H. B. Corderoy.

Kraaipan (Mafeking).—An extremely wet month, with prevailing winds from east and north-east. Rainfall: 9·00 inches on twelve days.—P. J. Hart.

Concordia (Namaqualand).—Thunderstorms have been prevalent throughout the month, and rain has fallen somewhere throughout the district nearly every day, with the result that the veld has come on rapidly. In Bushmansland grass is now standing a foot high almost everywhere, but, unfortunately, flying locusts are making their appearance and causing farmers considerable anxiety. Rainfall: 1·21 inch on six days.—F. R. Carstens.

Riversdale.—This month we have had very cloudy weather. Rain only in certain parts of the district, and in other parts drought is still very severe, especially the Karroo part of the district Rainfall: 1·32 inch on five days.—Rev. Martin Johnson.

Louisvale (Kenhardt).—This month saw the highest flood on record in the Orange River valley. The damage done is incalculable, and many irrigation works and settlements are beyond repair. No deaths from drowning are reported, but the loss of small stock is large. Rainfall: 3·62 inches on six days.—Stuart N. Smith.

Queenstown.—Rainfall: 7·67 inches on seventeen days. From 5th to 12th over 2 inches of soaking rain fell, which saturated the soil. This was followed by nearly 5½ inches of further steady rain from 20th to 24th and on 28th and 29th, which soon began to run off. The town water supply has been assured, the great dam at Bongolo having been filled. Ever since the rains cooler weather has prevailed, and the autumn is fast approaching. The country could not look finer.—J. F. C. Rein.

Sydney-on-Vaal (*Barkly West*).—Abnormal rains for March. Veld in excellent condition. Horse-sickness very prevalent and causing heavy mortality. River running very high for an extended period; highest flood since 1917, and first flood for many years that has maintained its volume for more than about a week. Rainfall: 7·41 inches on sixteen days.—J. G. Richards.

Port Alfred.—After the prolonged drought the rain this month was welcome and needed; although too late for crops it has replenished river water-holes and filled dams. The veld has improved wonderfully, and stock are in good condition. Rainfall varied from 3·84 inches on eleven days at this station to 10 inches in some parts of the district. Prospects for farmers are distinctly promising. Ploughs are busy. Tons of pines were destroyed by sun's rays last month.—W. H. Pascoe.

Belvedere (*Knysna*).—The continual shortage of rain for the last two months, combined with heat and dry south-east winds, have been bad for crops and prevented ploughing. Water is very scarce. I understand that good rains have fallen in neighbouring places about ten miles away. Rainfall: 1·76 inch on thirteen days.—F. Thornbury.

Darling (*Malmesbury*).—Continuance of exceptionally hot, dry weather. Rainfall: 0·06 inch on two days.—P. H. Drake.

Andriesfontein (*Hanover*).—Veld the best it has been for some time. Very heavy dew. No diseases amongst stock. Rainfall: 6·93 inches on twelve days.—H. van der Merwe.

Melton Wold (*Victoria West*).—7th, 2·07 inches. Very heavy rain lasting half an hour, and then continuous rain. Dam burst and roads completely washed; poultry drowned; lucerne fields badly damaged. Approximately £1,000 damage.—M. MacCarthy.

Slent (*Paarl*).—Very dry and hot for this time of year. Dam drying up, and many farmers away from mountain riding water for stock. Stream on this farm reduced to mere trickle. Rainfall: Nil.—R. W. Short.

Vruchtbaar (*Wellington*).—Very warm and dry month, with continuous south-east winds; even the nights were warm. For raisin-making and fruit-drying it was one of the best seasons we have had for years. Rainfall: 0·25 inch on two days.—P. J. Cillie.

Snydersfontein (*Beaufort West*).—Soft rains fell on the morning of the 4th and ended on the morning of the 5th. All dams are full, veld good, weather still promising. Rainfall: 1·41 inch on 4th.—A. G. van der Westhuizen.

Bruintjes Hoogte (*Pearston*).—The drought in this area has been completely broken with this month's rain. Veld in splendid condition, only very short. Rainfall: 4·00 inches on fifteen days.—E. S. Miller.

Chelmsford (*Aberdeen*).—Soft rains fell during March. Dams got hardly any water. Requires a great deal more to carry on during winter. Rainfall: 2·50 inches on six days.—F. Hayward.

Fairview (*Tarka*).—This month's rainfall is the most registered for one month for many years, in fact it is a record. The veld is beautiful, and the cattle, sheep, etc., are in very good condition. Rainfall: 8·58 inches on fourteen days.—R. L. Harris.

Petrusville (*Philipstown*).—Country in a beautiful state, stock in very good condition. Rainfall: 8·54 inches on 12 days. 7th to 10th: Dam above town overflowing and running out. Rain changed into cloud-burst, causing the dam to break its banks. Rainfall: 7th, 1·60 inch; 8th, 0·35 inch; 9th, 1·57 inch; 10th, 2·27 inches.—J. S. Cippen.

Dwingfontein (*Cradock*).—The veld is beautiful, cattle in good condition. Farmers are busy ploughing. Rainfall: 6·29 inches on eight days.—C. A. du Plessis.

Wolvekloof (*Steynsburg*).—Lovely rains, both soft and thunderstorms. No damage known to have occurred. All cattle in good condition. A few cases of blue-tongue and horse-sickness. Farmers hard set sowing for winter. Such rains have never fallen here before. Rainfall: 8·18 inches on eleven days.—J. Kruger.

Theefontein (*Hanover*).—Dews very heavy between rains. Blue-tongue and horse-sickness beginning to be prevalent. Rainfall: 7·24 inches on twelve days.—E. A. Murray.

Glencoe (*Middelburg*).—This has been the wettest month I have had since I started recording in 1906. Rainfall: 6·51 inches on thirteen days.—C. L. Hart.

Springfield (*Steynsburg*).—I have never been on the road and seen so much water for thirty years, 1·77 inch in twenty-four hours. Rainfall: 9·64 inches on fifteen days.—R. Wilkie.

Ezelsfontein (*De Aar*).—Stock in excellent condition. Veld like a garden. Locusts reported in De Aar District. All stages from newly hatched to flyers. "Ryspers" very numerous, and are destroying the Karroo bush completely. Blue-tongue and horse-sickness made its appearance, but is not severe, and very little loss reported till now. The cold weather is setting in now; stormy weather of a local nature frequent. Rainfall: 4·97 inches on eight days.—W. S. Marais.

Doornlaagte (*Barkly West*).—Blue-tongue and foot-rot amongst sheep. Neighbours are losing heavily. Rainfall: 5·81 inches on nine days.—C. Z. Heregan.

Danielskuil (*Barkly West*).—The excessive rains caused large accumulation of water in the pans. Horse-sickness and blue-tongue (in sheep) is prevalent. Rainfall: 9·38 inches on thirteen days.—A. Lichtenstein.

Douglas—De Erven—(*Herbert*).—Portion Douglas agricultural erven submerged by flood waters. Vaal River rose to 24⅔ feet over low water-level. Rainfall: 7·58 inches on ten days.—A. C. Martin.

Bucklands (*Herbert*).—Two-thirds of Bucklands settlement submerged by floods in the Orange and Vaal Rivers reaching the junction simultaneously. Rainfall: 6·93 inches on nine days.—A. C. Martin.

Griquatown (*Hay*).—This month's rainfall is a record since February, 1920, when the rainfall was 5·98 inches. The mealie crops are very promising, but early frosts are feared. Rainfall: 5·84 inches on twelve days.—The Gaoler.

Hazelmere (*Stutterheim*).—Prospects for a good winter are now assured. Rains have been steady, a little too much of the drizzle; few sheep with fever; those who have mealies might get fair crops if frost keeps off. Rainfall: 6·55 inches on fifteen days.—Sinclair Arnold.

Riversdale (*Cathcart*).—2nd, 0·53 inch. Rain was needed very badly. The maize crop was suffering, but has now recovered, but very backward. Rainfall: 7·58 inches on thirteen days.—C. K. Miles.

Sledmere (*Cathcart*).—From the 20th every day rain and overcast. Very soaking rains fell during month, did no damage to crops. It is years since this part had such good rains. A good winter is expected. Rainfall: 6·74 inches on sixteen days.—J. C. Froneman.

Vaalbank (*Venterstad*).—Brock Spruit overflowing, damaged dams. Many horses died of horse-sickness. Blue-tongue everywhere, but not too severe. Rainfall: 6·61 inches on sixteen days.—A. G. Minaber.

Lauriston (*Barkly East*).—7th–9th, continuous downpour for three days, rivers in flood. All traffic held up, including the mail. Rainfall: 7th, 0·65 inch; 8th, 1·00 inch; 9th, 0·87 inch. 20th 25th, violent downpour, settled into continuous heavy rain for five and a half days. Rivers flooded, exceeded all bounds. Kraai River railway bridge washed away. Carried stacks off the lands on the river banks and ripped up fencing. I have been here forty-six years and have never seen so much water going down the river. Great damage done everywhere by floods. 29th, violent storms of short duration; terrific thunder and lightning. Total rainfall: 12·97 inches on fourteen days.—H. R. Giddy.

Damplaats (*Albert*).—Old fountain which has been dry for ages is running again. Veld is lovely, but it seems as if the bush is dying. Many dams have broken. Rainfall 7·59 inches on fifteen days.—A. Kruger.

Bolotwa Contest (*Queenstown*).—Not only a new record for the month of March (the previous record was 5·85 inches in 1911), but it fell so gently that nearly all soaked in. The Bolotwa River here, with a catchment area of about 65 square miles, had more than 6 feet of water running in it. It is my highest monthly record since I started in 1886, with the exception of 7·84 inches in 1907. The six months, 20·30 inches only, exceeded four times, viz., in 1891, 1907, 1917, and 1918, with 27·50 inches, 25·10 inches, 20·38 inches, and 25·18 inches respectively. Rainfall: 7·71 inches on fifteen days.—W. Spencer.

Sassun (*Elliot*).—Grass, crops, winter feeding, cattle, and sheep in excellent order. Prospects rosy for winter. Best March month for twenty years. Rainfall: 6·33 inches on fifteen days.—C. S. McGregor.

BECHUANALAND.

Serowe.—Good steady rains. Rainfall: 5·77 inches on twenty days.—Bechuanaland Police.

Kalamari.—Good rains fell this month. The veld is at its best. Cattle looking well. Horses dying of horse-sickness. Crops good. River full. Rainfall: 8·00 inches on nineteen days.—E. Smith.

Dikgatlong Ranch (*Tuli Block*).—A very good month. Rain not above a drizzle. Veld excellent. No locusts. Rainfall: 2·88 inches on twenty days.—Paul Jousse.

BASUTOLAND.

Mafeteng.—Exceptionally heavy rains this month. Country flooded. Spruits overflowing and traffic impeded. Rainfall: 10·43 inches on nineteen days.—F. Hodgson.

MAY WEATHER CHARACTERISTICS.

Over the Cape Province precipitation is now increasing rapidly, the average over this area being about 5 inches. Rainfall is now at its maximum, about 1·5 inch along the west coast, whilst along the south there is a slight increase over the preceding month. In all parts of the Union the rainfall seldom exceeds an inch, with the exception of those areas previously mentioned, together with Swaziland and Zululand, so that, generally speaking, the month of May may be described as sunny and dry.

The mean daily temperatures are still decreasing rapidly, particularly over the Karroo, the Orange Free State, and Basutoland. Over the high veld and the Karroo radiation frosts occur, and killing frosts may be expected. The highest mean temperatures now occur over Natal, where the average is 61 degrees ; the southern coastal districts following with 60 degrees ; the western, south-western, and south-eastern districts, with 59 degrees ; the south-west of the Cape Province and the southern and east-central Karroo, with 58 degrees ; Kaffraria and the Cape northern border, with 57 degrees ; the Transvaal, with 54 degrees ; the west-central Karroo, with 53 degrees ; Basutoland, the northern Karroo, and the north-east of the Cape, with 52 degrees ; and the Orange Free State, with 51 degrees.

In the south-east of the Cape Province there is a decrease of winds from all directions having an easterly component and south and south-west winds, but an increase of northerly and all winds having westerly components, particularly of those from north-west, although those from west-south-west have a slight excess over the other directions. Over the Cape Peninsula north-westerly and south-westerly winds are about equally frequent, while over the northern border there is a marked increase of winds from south and east-north-east, together with a decrease of all winds from north round by west to west-south-west, as well as of south-east winds ; the winds from south are slightly in excess of those from east-north-east ; these constitute the principal directions during the month. On the high veld, on the other hand, the only directions showing an increased frequency are those between north and west-north-west and from south, all others showing a diminution in frequency ; north-north-west is the prevalent direction.

AIR TEMPERATURES (SELF-REGISTERING THERMOMETERS IN THERMOMETER-SCREENS), MARCH, 1925.

Place.	Observer.	Mean Maximum.	Mean Minimum.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Transvaal—										
Barberton	W. Grubb	78·9	64·0	71·4	70·6	+ 0·8	89·0	9th	55·0	31st.
Belfast	The Forester	69·4	52·2	60·8	59·8	+ 1·0	79·0	2nd	43·0	31st.
Bloemhof	C. J. van Tonder	79·1	59·4	69·2	68·8	+ 0·4	88·0	1st	52·8	31st.
Ermelo	J. Dean	70·7	55·1	62·9	62·2	+ 0·7	80·6	1st and 2nd	48·6	30th.
Johannesburg (Observatory)	The Staff	71·8	54·3	63·0	62·4	+ 0·6	79·0	18th	46·1	31st.
Klerksdorp (Strathmore)	Chas. Scott	77·8	58·5	68·2	69·5	− 1·3	86·0	1st	52·0	31st.
Komatipoort	A. H. White	85·7	70·0	77·8	77·0	+ 0·8	98·0	7th	60·0	30th.
Louis Trichardt	C. L. Cope	—	—	—	68·8	—	—	—	—	—
Middelburg	—	—	—	—	65·6	—	—	—	—	—
Nylstroom	G. Bakker	79·5	60·9	70·2	68·4	+ 1·8	85·0	1st, 2nd, 6th, and 24th	50·0	31st.
Pietersburg	W. J. Frankleyne	79·0	59·8	69·4	67·0	+ 2·4	88·0	9th	48·0	31st.
Piet Retief	J. Werner	71·7	59·1	65·4	65·2	+ 0·2	85·5	2nd	53·0	30th.
Pigeonhole (New Agatha)	J. McCallum	70·5	60·7	65·6	—	—	77·0	2nd and 24th	55·0	29th, 30th, and 31st.
Pilgrims Rest	E. M. Skea	73·2	58·2	65·7	65·3	+ 0·4	83·0	2nd	46·0	31st.
Potchefstroom (Exp. Farm)	The Manager	76·3	58·1	67·2	66·9	+ 0·3	83·3	1st	50·2	31st.
Pretoria (Meteorological Office)	The Staff	78·2	60·4	69·3	67·8	+ 1·5	86·2	1st	50·9	31st.
Rustenburg	A. Streatfield	81·6	60·3	71·0	70·0	+ 1·0	101·0	11th and 12th	54·0	30th and 31st.
Standerton	—	—	—	—	63·0	—	—	—	—	—
Zeerust	H. Dietrich	79·5	61·4	70·4	69·4	+ 1·0	87·2	1st	53·1	31st.
Swaziland—										
Mbabane	Swaziland Police	72·1	59·3	65·7	64·6	+ 1·1	83·0	2nd	52·0	30th.
Orange Free State—										
Bethulie	J. J. Wardhaugh	75·3	55·1	65·2	66·8	− 1·6	83·2	19th	46·0	30th.
Bloemfontein	G. A. Schepers	75·6	56·8	66·2	66·7	− 0·5	82·3	7th	49·1	27th.
Harrismith	The Forester	65·6	51·7	58·6	61·0	− 2·4	74·5	5th	40·0	31st.
Kroonstad	A. C. Mason	77·1	57·9	67·5	67·0	+ 0·5	85·2	1st	52·0	16th.
Ladybrand	The Forester	72·3	55·2	63·7	63·6	+ 0·1	78·0	7th and 19th.	47·0	31st.
Lindley	J. Murphy	74·2	56·0	65·1	65·3	− 0·2	79·9	1st	47·0	31st.
Natal—										
Dundee	W. Thorrold	72·6	57·0	64·8	68·7	− 3·9	86·0	2nd	50·0	31st.
Durban (Point)	The Port Captain	79·8	69·7	74·8	76·0	− 1·2	89·2	8th	65·6	27th.
Empangeni	The Forester	79·5	67·5	73·5	73·9	− 0·4	91·0	2nd	61·0	27th.
Estcourt	The Town Clerk	—	—	—	69·4	—	—	—	—	—
Hlabisa	E. E. Redgrove	75·5	63·8	69·6	70·0	− 0·4	91·0	2nd	58·0	27th, 30th, and 31st.
Ladysmith	D. A. R. Leathern	75·5	60·9	68·2	72·0	− 3·8	89·0	2nd	53·0	31st.
Maritzburg (Mental Hospital)	The Superintendent	74·8	62·1	68·4	71·4	− 3·0	89·5	1st and 6th	56·0	27th.
Stanger	C. C. Foss	80·0	67·6	73·8	74·4	− 0·6	94·5	8th	63·5	11th.
Weenen	The Gaoler	77·6	62·3	70·0	73·2	− 3·2	91·6	3rd	55·0	28th and 29th.

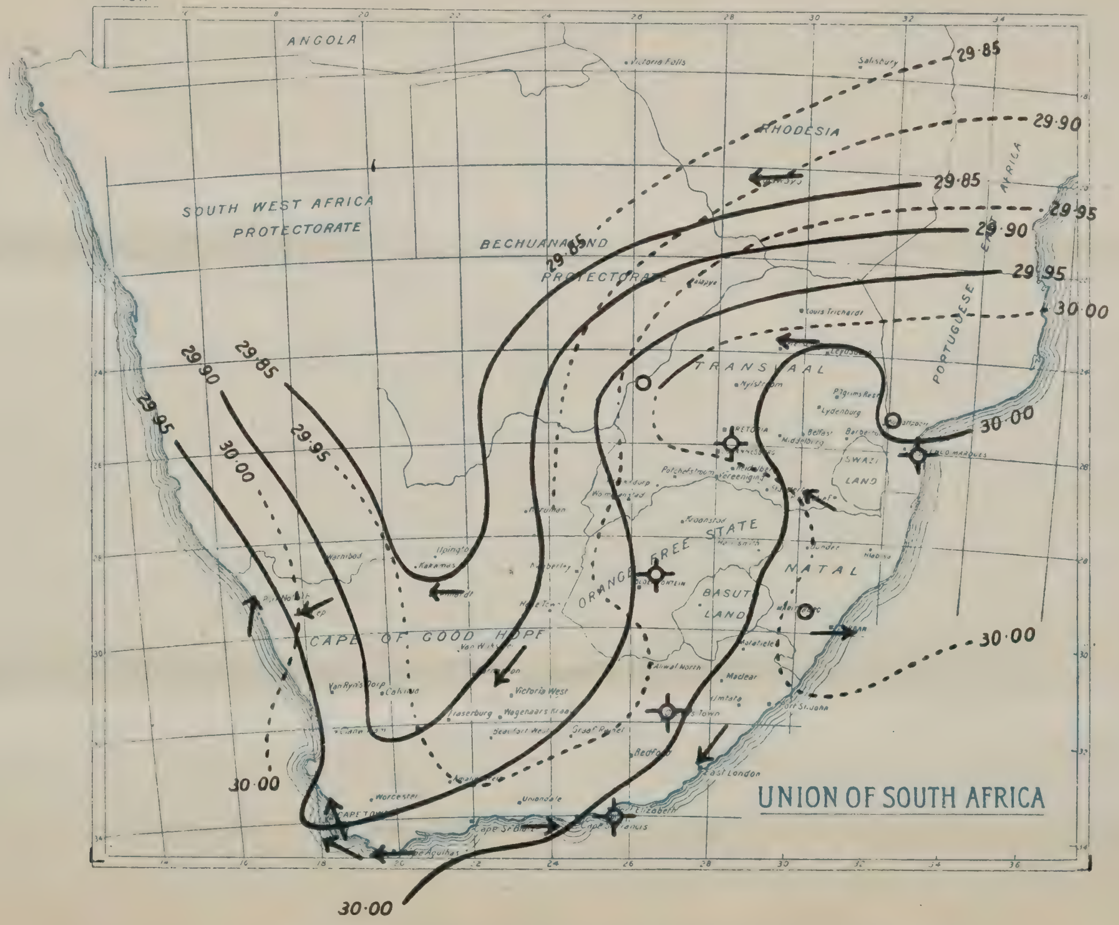
AIR TEMPERATURES, MARCH, 1925—(*continued*).

Place.	Observer.	Mean Maximum.	Mean Minimum.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
		° F.	° F.	° F.	° F.	° F	° F.		° F.	
Cape Province—										
Aliwal North	Alex. Alcock	74·8	54·2	64·5	66·1	− 1·6	86·0	19th	45·0	27th.
Bedford	T. C. Hall	75·5	58·8	67·2	66·8	+ 0·4	94·0	1st	52·0	31st.
Cape Town (Royal Observatory)	The Staff	80·4	61·3	70·8	68·0	+ 2·8	100·1	31st	55·0	1st.
Carnarvon	A. P. Malherbe	80·9	58·0	69·4	68·9	+ 0·5	87·0	4th, 18th, and 19th	51·0	26th.
Clanwilliam	C. B. van Zijl	93·9	58·9	76·4	74·0	+ 2·4	105·0	5th and 20th.	52·0	30th and 31st.
East London	The Port Captain	73·0	63·9	68·4	68·7	− 0·3	84·0	6th	60·2	18th.
Graaff-Reinet (Convent)	The Mother Superior	81·0	60·5	70·8	69·8	+ 1·0	96·2	19th	55·6	31st.
Grahamstown	The Vet. Res. Officer	75·8	57·8	66·8	69·8	− 3·0	96·0	1st	49·8	22nd.
Groot Drakenstein	A. Franceys	87·6	63·2	75·4	69·4	+ 6·0	102·5	4th	55·0	17th.
Kenhardt	R. Seydell	88·3	65·7	77·0	74·8	+ 2·2	95·0	18th	57·0	28th.
Kimberley	C. H. Dowler	78·7	60·0	69·4	72·0	− 2·6	89·0	1st	55·0	15th, 27th, and 30th.
Kingwilliamstown	W. H. Kindness	77·6	61·8	69·7	72·0	− 2·3	98·0	1st	56·0	18th.
Kokstad	H. D. Coyte	70·8	54·4	62·6	63·6	− 1·0	84·3	1st	45·0	31st.
Mafeking (Convent)	The Mother Superior	78·5	60·9	69·7	70·9	− 1·2	85·2	2nd and 7th.	53·2	31st.
Mossel Bay (Cape St. Blaize)	The Lightkeeper	71·8	61·9	66·8	68·6	− 1·8	87·0	5th	58·0	22nd.
Murraysburg	—	—	—	—	66·4	—	—	—	—	—
O'okiep	J. Burrows	84·9	64·7	74·8	70·0	+ 4·8	92·2	19th	54·0	22nd.
Port Elizabeth	The Lightkeeper	73·4	63·4	68·4	69·0	− 0·6	88·0	1st	61·0	19th, 22nd, 23rd, and 31st.
Port Nolloth	The Lightkeeper	67·1	54·7	60·9	59·4	+ 1·5	90·5	30th	50·5	28th.
Port St. Johns (Cape Hermes)	The Lightkeeper	75·7	66·9	71·3	71·6	− 0·3	81·0	1st	63·0	30th.
Queenstown	H. Holley	76·0	56·7	66·4	68·1	1·7	87·0	1st, 4th, 5th, and 20th	49·0	27th.
Somerset East	C. Harris	75·7	59·4	67·6	69·5	− 1·9	93·6	1st	53·8	31st.
Stutterheim	F. C. Bousfield	74·3	58·8	66·6	67·0	− 0·4	92·0	5th	51·1	30th.
Sydney's Hope	Rev. S. Rippon	76·3	60·1	68·2	68·2	± 0·0	98·0	5th	55·0	22nd.
Uitenhage	H. Inggs	80·8	62·5	71·6	70·0	+ 1·6	99·5	5th	51·0	31st.
Umtata	P. Hackitt	76·6	60·0	68·3	69·6	− 1·3	95·5	6th	52·8	31st.
Vryburg	Sergt. H. White	79·6	59·8	69·7	70·8	− 1·1	88·0	1st	53·0	31st.
Wynberg (Convent)	The Mother Superior	80·4	60·3	70·4	67·2	+ 3·2	96·5	31st	56·0	7th and 18th.
Basutoland—										
Mafeteng	F. Hodgson	71·0	53·9	62·4	65·7	− 3·3	79·0	19th	45·0	31st.

RAINFALL, MARCH, 1925.

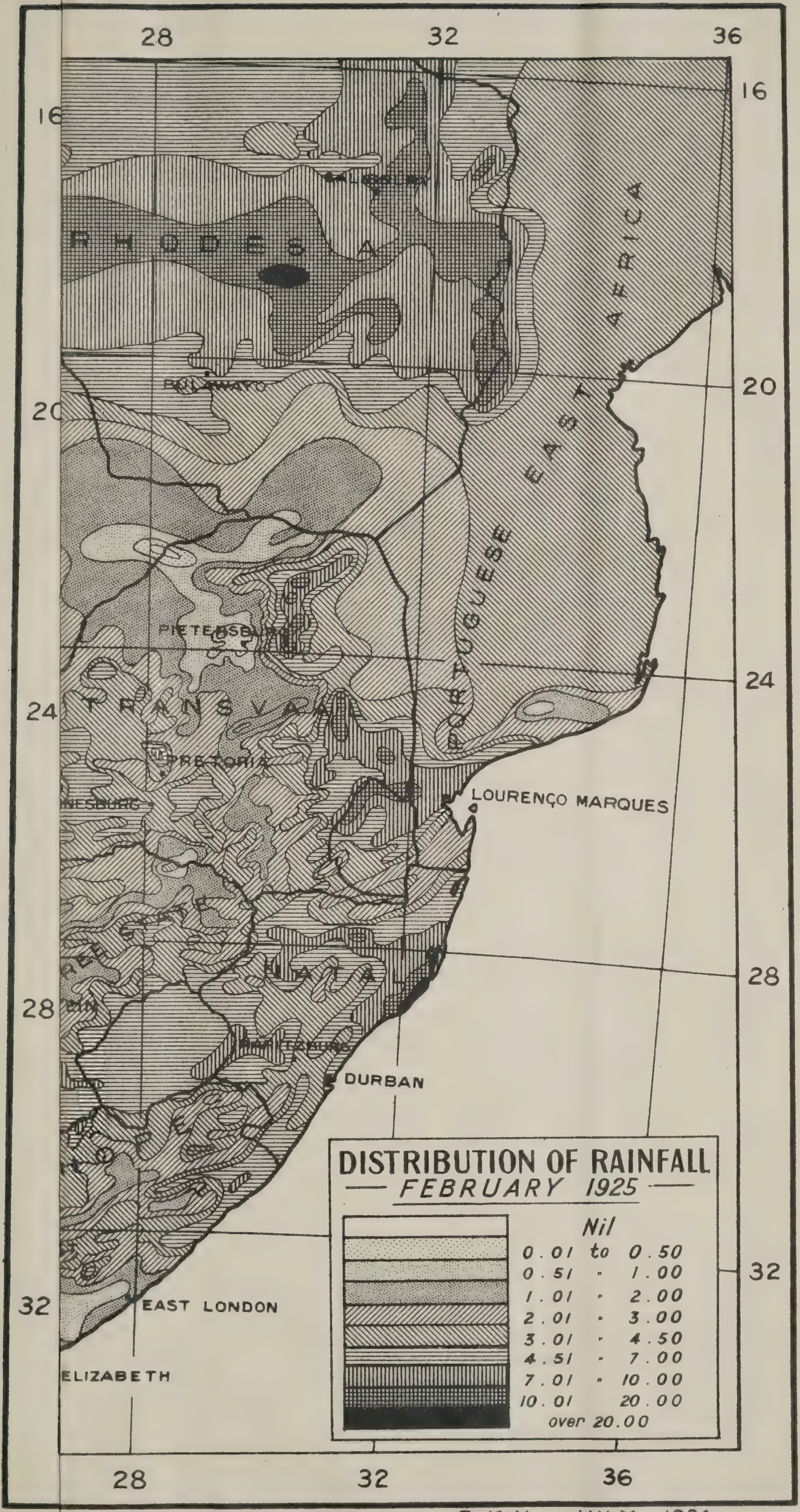
Place.	Observer.	Month. Mar,, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
Transvaal—		Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches
Barberton	W. Grubb	11·62	3·81	+ 7·81	21·22	14·73	+ 6·49	39·41	28·75	+10·66
Belfast	The Forester	6·53	4·41	+ 2·12	15·43	14·10	+ 1·33	31·99	30·03	+ 1·96
Bethal	H. F. Joubert	5·78	2·92	+ 2·86	9·98	12·12	— 2·14	27·03	27·73	— 0·70
Bloemhof	C. J. van Tonder	8·29	2·93	+ 5·36	13·16	10·05	+ 3·11	24·51	16·59	+ 7·92
Claremont	S.A. Police	3·51	2·57	+ 0·94	9·60	9·27	+ 0·33	19·13	17·20	+ 1·93
Ermelo	The Forester	5·47	3·20	+ 2·27	9·63	12·47	— 2·84	26·17	29·59	— 3·42
Haenertsberg	S.A. Police	20·56	5·68	+14·88	37·72	21·02	+16·70	56·64	35·01	+21·63
Heidelberg	W. Ter Horst	—	3·09	—	—	—	—	—	—	—
Johannesburg (Observatory)	The Staff	6·16	3·76	+ 2·40	15·65	14·30	+ 1·35	29·31	28·68	+ 0·63
Joubert Park (Johannesburg)	The Supt. of Parks	7·09	4·16	+ 2·93	18·86	15·77	+ 3·09	35·27	30·39	+ 4·88
Klerksdorp (Strathmore)	C. Scott	5·03	3·04	+ 1·99	12·05	11·04	+ 1·01	24·53	20·84	+ 3·69
Komatipoort	A. H. White	13·70	4·41	+ 9·29	26·00	15·07	+10·93	44·50	24·98	+19·52
Louis Trichardt	C. L. Cope	19·11	3·14	+15·97	32·12	15·38	+16·74	47·99	27·29	+20·70
Middelburg	—	—	3·46	—	—	—	—	—	—	—
Nylstroom	G. Bakker	7·83	3·35	+ 4·48	14·83	12·38	+ 2·45	26·33	23·14	+ 3·19
Pietersburg	W. J. Frankleyne	7·42	2·41	+ 5·01	13·08	10·04	+ 3·04	23·97	19·94	+ 4·03
Piet Retief	J. Werner	9·78	3·85	+ 5·93	20·89	15·39	+ 5·50	46·28	33·43	+12·85
Pigeonhole (New Agatha)	J. McCallum	26·30	6·48	+19·82	48·56	24·91	+23·65	74·10	43·72	+30·38
Pilgrims Rest	E. M. Skea	25·19	5·81	+19·38	41·09	22·02	+19·07	58·68	36·36	+22·32
Potchefstroom (Exp. Farm)	The Manager	6·26	2·37	+ 3·89	15·08	10·38	+ 4·70	29·03	21·40	+ 7·63
Pretoria (Meteorological Office)	The Staff	7·46	3·43	+ 4·03	15·72	14·09	+ 1·63	30·76	27·56	+ 3·20
Rooiberg	N. H. Monro	6·25	3·05	+ 3·20	13·69	12·61	+ 1·08	24·58	23·27	+ 1·31
Rustenburg	A. Streatfield	7·98	3·70	+ 4·28	15·29	12·96	+ 2·33	28·83	24·91	+ 3·92
Standerton	The Magistrate	7·54	3·43	+ 4·11	—	—	—	—	—	—
Wakkerstroom	J. Cilliers	8·17	3·61	+ 4·56	18·62	14·56	+ 4·06	34·96	29·96	+ 5·00
Woodbush I.	The Forester	35·13	10·19	+24·94	62·27	39·77	+22·50	95·59	65·85	+29·74
Zeerust	H. Dietrich	6·56	3·27	+ 3·29	14·00	12·03	+ 1·97	28·75	21·76	+ 6·99
Swaziland—										
Mbabane	Swaziland Police	33·92	6·64	+27·28	53·87	25·23	+28·64	93·64	48·74	+44·90
Orange Free State—										
Bethulie	J. J. Wardaugh	6·75	2·91	+ 3·84	14·02	8·77	+ 5·25	21·55	14·96	+ 6·59
Bloemfontein	G. A. Schepers	5·73	3·57	+ 2·16	10·72	10·64	+ 0·08	20·80	18·43	+ 2·37
Boshof	P. H. van Rooyen	4·36	3·83	+ 0·53	9·08	9·65	— 0·57	18·89	17·01	+ 1·88
Harrismith	The Forester	13·49	3·60	+ 9·89	19·04	13·10	+ 5·94	36·36	27·08	+ 9·28
Kroonstad	A. C. Mason	5·41	3·53	+ 1·88	10·35	11·30	— 0·95	27·66	21·24	+ 6·42
Ladybrand	The Forester	9·98	3·33	+ 6·65	16·90	12·18	+ 4·72	37·30	24·17	+13·13
Lindley	The Gaoler	8·05	2·87	+ 5·18	15·61	10·70	+ 4·91	—	21·36	—
Natal—										
Dundee	W. Thorrold	10·27	3·91	+ 6·36	22·42	14·64	+ 7·78	41·62	29·07	+12·55
Durban (Point)	The Port Captain	17·70	5·12	+12·58	26·64	14·17	+12·47	46·33	34·89	+11·44
Empangeni	The Forester	32·05	5·10	+26·95	47·34	16·24	+31·10	73·84	38·08	+35·76

N°101.



March, 1925. Prevailing Winds and Mean Baromtric Pressure at 8.30 a.m.
The dotted lines indicate the normal distribution for March.

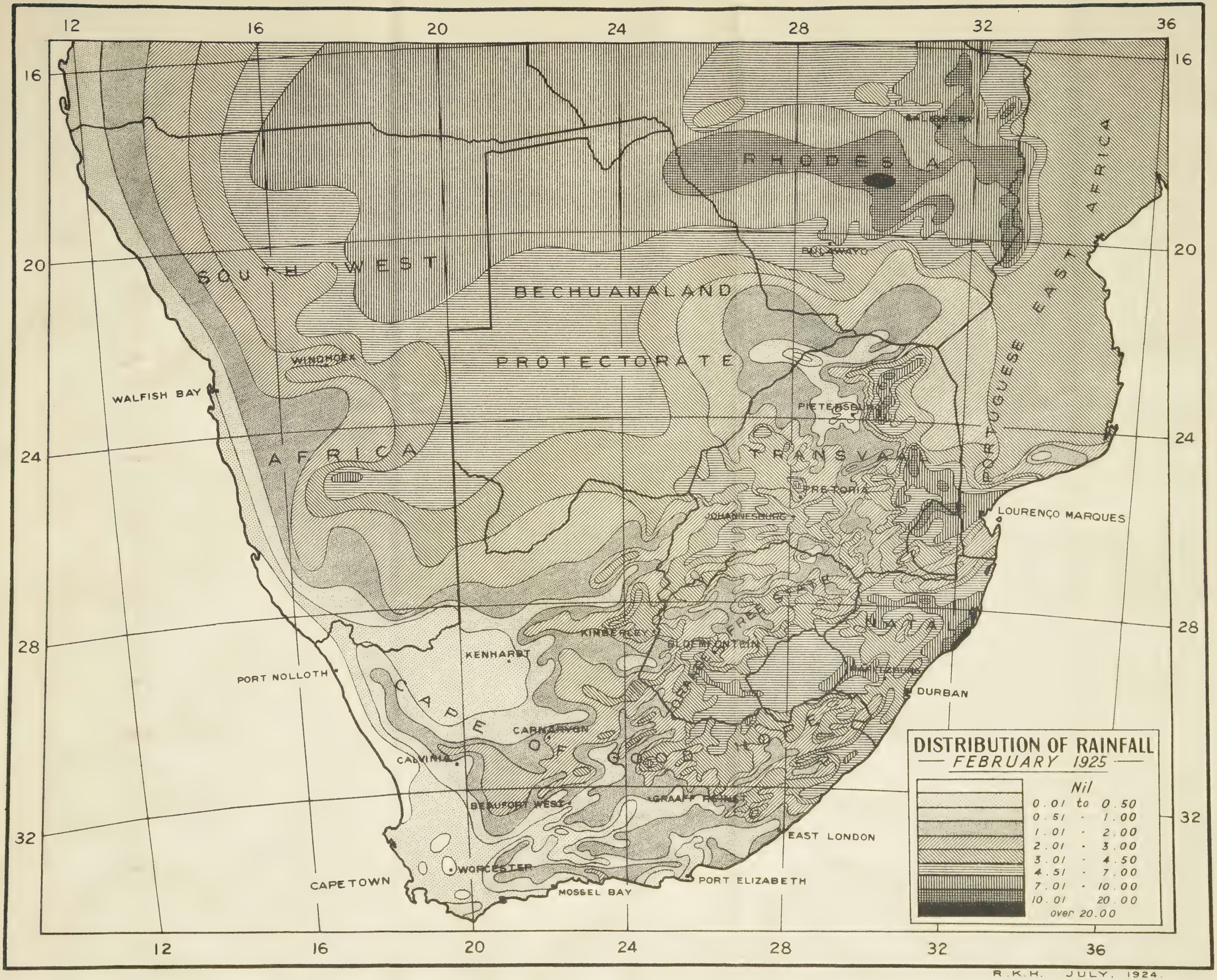
CA



DISTRIBUTION OF RAINFALL
FEBRUARY 1925

R.K.H. JULY, 1924.

SOUTH AFRICA



R.K.H. JULY, 1924.

RAINFALL, MARCH, 1925—(*continued*).

Place.	Observer.	Month. Mar., 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
Natal—(continued).		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Estcourt	The Town Clerk	13·53	3·92	+ 9·61	25·30	14·34	+10·96	46·77	26·68	+20·09
Hlabisa	E. E. Redgrove	45·41	4·61	+40·80	59·88	17·58	+42·30	84·82	38·50	+46·32
Howick	The Gaoler	13·93	4·26	+ 9·67	26·64	14·99	+11·65	43·26	30·02	+13·24
Ladysmith	D. A. R. Leathern	16·35	4·09	+12·26	29·05	13·97	+15·08	49·35	26·22	+23·13
Maritzburg (Mental Hospital)	The Staff	19·16	4·95	+14·21	30·22	16·47	+13·75	50·82	33·73	+17·09
Stanger	C. C. Foss	24·50	4·79	+19·71	35·17	14·49	+20·68	59·37	36·99	+22·38
Vryheid	The Gaoler	13·50	3·71	+ 9·79	25·40	15·25	+10·15	47·44	32·02	+15·42
Weenen	The Gaoler	5·39	2·99	+ 2·40	14·96	12·82	+ 2·14	33·45	24·92	+ 8·53
Cape Province—										
Aliwal North	A. Alcock	8·28	3·14	+ 5·14	16·81	9·43	+ 7·38	24·42	17·19	+ 7·23
Beaufort West	The Gaoler	2·51	1·83	+ 0·68	4·14	4·14	± 0·00	6·26	7·64	− 1·38
Bedford	T. C. Hall	6·14	3·82	+ 2·32	8·88	10·69	− 1·81	16·89	21·70	− 4·81
Britstown	S.A. Police	5·18	2·39	+ 2·79	9·00	5·46	+ 3·54	12·58	8·70	+ 3·88
Calvinia	The Gaoler	1·72	0·80	+ 0·92	2·70	1·59	+ 1·11	5·84	5·08	+ 0·76
Cape Town (Royal Observatory)	The Staff	0·02	0·92	− 0·90	0·81	2·19	− 1·38	11·05	15·11	− 4·06
Ceres	The Gaoler	0·00	1·06	− 1·06	0·89	2·63	− 1·74	19·75	25·42	− 5·67
Carnarvon	A. P. Malherbe	4·43	1·54	+ 2·89	6·62	3·82	+ 2·80	—	6·06	—
Clanwilliam	The Gaoler	0·81	0·26	+ 0·55	1·22	0·71	+ 0·51	4·56	5·04	− 0·48
Concordia	F. R. Carstens	—	0·51	—	—	1·16	—	—	3·86	—
Driefontein (French Hock)	The Forester	0·00	2·23	− 2·23	2·37	4·99	− 2·62	41·16	43·47	− 2·31
East London	A. Downie	10·68	3·61	+ 7·07	15·88	10·08	+ 5·80	26·86	26·33	+ 0·53
Fraserburg	The Gaoler	—	1·18	—	—	2·85	—	—	4·85	—
Grahamstown	Vet. Res. Officer	4·70	3·18	+ 1·52	6·85	8·50	− 1·65	14·73	22·30	− 7·57
Garies	The Gaoler	—	0·15	—	—	0·42	—	—	2·93	—
Graaff-Reinet (Convent)	The Mother Superior	4·36	2·18	+ 2·18	6·63	5·37	+ 1·26	10·43	11·04	− 0·61
Groot Drakenstein	A. L. Franceys	—	1·19	—	—	2·90	—	—	21·48	—
Griquatown	The Gaoler	5·84	2·58	+ 3·26	8·36	6·55	+ 1·81	—	10·24	—
George (Rectory)	Rev. Canon B. Price	4·13	3·63	+ 0·50	8·12	10·21	− 2·09	26·63	26·67	− 0·04
Hanover	The Gaoler	5·00	2·54	+ 2·46	7·76	6·29	+ 1·47	11·12	10·36	+ 0·76
Hopetown	The Gaoler	—	2·73	—	—	6·49	—	—	10·25	—
Kenhardt	R. Seydell	2·22	1·20	+ 1·02	2·70	2·98	− 0·28	5·31	4·51	+ 0·80
Kimberley	C. H. Dowler	5·59	3·01	+ 2·58	10·91	7·98	+ 2·93	20·13	13·71	+ 6·42
Knysna	The Gaoler	1·44	2·54	− 1·10	4·70	6·76	− 2·06	19·20	21·67	− 2·47
Kokstad	H. D. Coyte	—	3·53	—	—	12·29	—	—	23·94	—
Kingwilliamstown	W. Kindness	9·27	3·10	+ 6·17	13·18	8·93	+ 4·25	21·90	20·59	+ 1·31
Kuruman	Resident Magistrate	4·53	3·41	+ 1·12	11·45	9·90	+ 1·55	—	14·83	—
Mafeking (Convent)	The Mother Superior	6·75	3·28	+ 3·47	13·16	11·20	+ 1·96	24·95	20·46	+ 4·49
Mossel Bay (Cape St. Blaize)	The Lightkeeper	0·86	1·47	− 0·61	2·57	4·11	− 1·54	8·72	12·60	− 3·88
Murraysburg	W. Rose-Innes	—	2·09	—	—	4·81	—	—	8·38	—
O'okiep	H. T. Wyles	0·40	0·41	− 0·01	1·90	0·97	+ 0·93	3·08	4·27	− 1·19

RAINFALL, MARCH, 1925—(*continued*).

Place.	Observer.	Month. Mar., 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
Cape Province (continued).		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Philipstown	The Gaoler	8·06	2·74	+ 5·32	11·16	6·62	+ 4·54	15·94	10·78	+ 5·16
Piquetberg	The Gaoler	0·00	0·56	− 0·56	1·01	1·59	− 0·58	—	13·02	—
Port Elizabeth	The Lightkeeper	1·64	1·75	− 0·11	2·94	4·29	− 1·35	—	16·41	—
Port St. Johns	The Lightkeeper	10·80	5·59	+ 5·21	22·57	16·32	+ 6·25	43·01	41·29	+ 1·72
Port Nolloth	The Lightkeeper	—	0·16	—	—	0·28	—	—	1·36	—
Prieska	The Gaoler	6·63	2·20	+ 4·43	—	5·00	—	—	7·42	—
Queenstown	H. Holley	7·08	3·43	+ 3·65	12·76	10·85	+ 1·91	21·15	19·69	+ 1·46
Steytlerville	The Gaoler	0·94	1·63	− 0·69	2·27	3·69	− 1·42	4·65	7·41	− 2·76
Sutherland	The Gaoler	—	0·94	—	—	2·11	—	—	6·08	—
Swellendam	The Gaoler	6·93	3·06	+ 3·87	9·39	8·23	+ 1·16	—	23·83	—
Sydney's Hope	Rev. S. Rippon	2·77	2·33	+ 0·44	5·26	6·40	− 1·14	15·65	17·32	− 1·67
Somerset East	C. Harris	4·35	3·64	+ 0·71	—	9·61	—	—	20·90	—
Stutterheim	F. C. Bousfield	—	4·06	—	—	12·32	—	—	25·53	—
Uitenhage	H. Inggs	2·04	2·08	− 0·04	3·75	4·79	− 1·04	10·70	13·23	− 2·53
Umtata	B. J. Hackitt	9·43	3·33	+ 6·10	13·89	10·51	+ 3·38	24·40	21·49	+ 2·91
Uniondale	The Gaoler	0·48	1·47	− 0·99	1·98	3·10	− 1·12	8·23	9·48	− 1·25
Upington	The Gaoler	6·09	1·92	+ 4·17	7·44	3·79	+ 3·65	9·57	5·76	+ 3·81
Victoria West	The Gaoler	4·29	2·10	+ 2·19	5·59	5·05	+ 0·54	9·42	8·23	+ 1·19
Vryburg	Sergt. H. White	8·54	3·30	+ 5·24	—	11·06	—	—	16·96	—
Worcester	The Gaoler	—	0·54	—	—	1·14	—	—	7·80	—
Wynberg (Convent)	The Mother Superior	0·02	1·30	− 1·28	—	3·12	—	—	28·96	—
Basutoland—										
Mafeteng	F. Hodgson	10·43	4·26	+ 6·17	20·68	14·35	+ 6·33	35·23	26·68	+ 8·55
South-West Africa—										
Aroab	S.W.A. Police	2·97	2·26	+ 0·71	7·16	5·21	+ 1·95	7·82	6·75	+ 1·07
Aus	E. Martins	0·61	0·73	− 0·12	3·10	1·46	+ 1·64	3·97	2·76	+ 1·21
Bethanie	Rev. Peter	5·02	0·62	+ 4·40	7·97	2·28	+ 5·69	9·49	3·05	+ 6·44
Duestenbrock	R. Matthiessen	5·97	3·48	+ 2·49	10·35	9·54	+ 0·81	12·24	11·78	+ 0·46
Gabis	Rev. P. Rehor	6·16	0·71	+ 5·45	7·03	1·52	+ 5·51	7·62	2·84	+ 4·78
Garinais	F. Bentling	3·94	1·57	+ 2·37	8·07	3·42	+ 4·65	9·27	5·01	+ 4·26
Gibeon	The Postmaster	3·09	1·38	+ 1·71	9·99	4·38	+ 5·61	10·58	5·56	+ 5·02
Gobabis	Rev. Irle	5·71	2·94	+ 2·77	11·42	10·59	+ 0·83	14·63	14·39	+ 0·24
Grootfontein	Pitkowski	6·01	4·13	+ 1·88	19·05	15·35	+ 3·70	26·69	21·92	+ 4·77
Gr. Witvley	G. Maas	6·87	2·83	+ 4·04	14·75	9·46	+ 5·29	18·55	13·12	+ 5·43
Haribes	G. Freund	2·38	1·80	+ 0·58	6·74	5·48	+ 1·26	7·42	7·10	+ 0·32
Hierachabis	Rev. P. Stroka	1·58	1·16	+ 0·42	2·58	2·20	+ 0·38	2·89	3·11	− 0·22
Kalkfontein S.	S.W.A. Police	5·29	1·38	+ 3·91	7·60	2·42	+ 5·18	8·51	3·00	+ 5·51
Franzfontein	H. Janson	3·52	2·30	+ 1·22	9·97	6·61	+ 3·36	10·58	8·82	+ 1·76
Luderitz Bay	E. Stoeber	0·22	0·02	+ 0·20	0·22	0·03	+ 0·19	0·23	0·29	− 0·06

RAINFALL, MARCH, 1925—*(continued)*.

Place.	Observer.	Month.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
		Mar., 1925.								
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
South-West Africa—(contd.)										
Maltahoehe	E. Just	3·04	1·53	+ 1·51	7·84	4·45	+ 3·39	8·13	5·38	+ 2·75
Neu Heusis	Liebig's Extract Co.	5·83	2·92	+ 2·91	12·58	9·91	+ 2·67	13·25	12·57	+ 0·68
Okahandja	B. Templin	6·87	3·14	+ 3·73	15·55	9·55	+ 6·00	19·42	12·63	+ 6·79
Okasangumingo	R. H. A. Schneider	6·61	3·63	+ 2·98	13·80	11·08	+ 2·72	16·68	16·31	+ 0·37
Omaruru	The Postmaster	6·21	1·86	+ 4·35	13·56	11·71	+ 1·85	15·27	14·16	+ 1·11
Otjiwarongo	The Magistrate	4·57	3·63	+ 0·94	14·20	10·61	+ 3·59	14·42	14·53	— 0·11
Outjo	The Magistrate	4·68	2·91	+ 1·77	16·23	10·43	+ 5·80	20·20	14·15	+ 6·05
Rehoboth	The Postmaster	3·28	2·84	+ 0·44	5·90	8·11	— 2·21	6·39	10·66	— 4·27
Rietfontein	B. Leist	11·81	3·99	+ 7·82	24·64	12·74	+11·90	28·97	18·57	+10·40
Swakopmund	The Gaoler	0·06	0·09	— 0·03	0·65	0·29	+ 0·36	0·75	0·58	+ 0·17
Tsumeb	Ing. Schetter	7·24	3·40	+ 3·84	20·38	15·19	+ 5·19	29·60	22·10	+ 7·50
Usakos	Rev. Diehl	4·08	1·20	+ 2·88	8·30	3·48	+ 4·82	9·19	4·46	+ 4·73
Voigtsgrund	A. Voigts	6·94	1·57	+ 5·37	16·76	5·31	+11·45	19·30	6·53	+12·77
Warmbad	E. Luchtenstein	2·89	0·74	+ 2·15	3·21	1·86	+ 1·35	3·95	2·56	+ 1·39
Waterburg	D. Hahn	7·68	3·34	+ 4·34	14·01	12·71	+ 1·30	18·71	17·74	+ 0·97
Wilhelmstal	W. Boehmker	6·20	2·52	+ 3·68	12·24	8·70	+ 3·57	13·96	11·32	+ 2·64
Windhoek	Observatory	6·94	3·27	+ 3·67	12·80	9·73	+ 3·07	15·42	12·96	+ 2·46

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UNION OF SOUTH AFRICA.

DEPARTMENT OF IRRIGATION.

MONTHLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE.

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Mean atmospheric pressure lower than usual in the eastern Transvaal and Natal, and, to a less extent, in the west of the Cape Province; mean temperature a few tenths of a degree higher than usual, with the days on an average 2½ degrees cooler, but the nights almost 3 degrees warmer than the respective normals; unusually cool, cloudy weather and frequent mists, with an absence of the bright sunshine usual at this period; a noteworthy absence of frost in the Transvaal, Orange Free State, and Natal; a few light frosts in the east of the Cape Province, causing no damage; an excess of rainfall over the greater part of the Union, establishing new records for the month in some instances, falling on an exceptionally large number of days for this month, and causing damage to both standing and cut crops; absolute drought in portion of the west coast area, and a subnormal rainfall in Namaqualand, the west coast, the west and south-west of the northern Karroo, the southern Karroo, most of the coast stations in the south and east, as well as over small patches in Natal and in the east and north-west of the Transvaal; a few light hailstorms, causing damage to mealie and other crops; a remarkable scarcity of thunderstorms; floods in most of the rivers in the Transvaal, Orange Free State, and east of the Cape; some exceptionally large totals and heavy falls breaking dams, interrupting transport, cutting up roads, etc., particularly in the summer rainfall area; unusually windy in the south-west, due to an exceptionally late continuance of "south-easters"; unusually late rains in the Bechuanaland Protectorate, causing a continuance of the flow in rivers usually dry at this period; such were the outstanding features of the exceptional weather of April, 1925.

Pressure.—The mean atmospheric pressure during April was practically normal, except over the eastern Transvaal and Natal, where it was about five-hundredths of an inch lower than usual; and the west of the Union, where it was also a few hundredths under the average.

On the 1st, the rear of a high-pressure area lay over Natal, with gradients from east to west and north, the barometric readings being lowest over South-West Africa—a few showers had taken place in Natal, the east and west of the Transvaal, the centre and east of the Orange Free State, Kaffraria, and Gordonia, but was general in the northern half of South-West Africa; on the 2nd, pressure conditions continued practically the same except for a slight rise in South-West Africa; rain had fallen chiefly over the southern half of the Transvaal, Bechuanaland, the east of the Orange Free State, and Basutoland; on the 3rd, pressure had decreased in the east and risen in the south-west; the head of an inverted V depression lay over the south-east, while a complementary trough of low pressure lay over South-West Africa; precipitation had occurred over practically the same area as on the previous day, but had extended to the west and south of the Orange Free State and into Natal; on the 4th, the south-east coastal low pressure had disappeared, being replaced by the isobar of a "high" which had caused the "low" in South-West Africa to retreat slightly farther north; the rainfall area had decreased in extent, being confined to the southern half of the Transvaal, the extreme north and south of the Orange Free State, but had also fallen along the south of the Cape Province and the north of South-West Africa; on the 5th, an additional isobar of the high-pressure area had pushed on to the south coast, while a slight fall had taken place over the north of South-West Africa, causing the isobars to have a general trend from north-east to south-west; rain had fallen since the previous morning, over the eastern half of the Cape Province, Bechuanaland, the Orange Free State, Natal, and the east of the Transvaal, also in the north of South-West Africa; on the 6th, the "high" had moved to the north-east, with its isobars covering an increased portion of the east of the Union, while pressure had fallen slightly at Walvis Bay, giving indications of a "low" on the coast there; rain had fallen over the greater part of the Transvaal, as well as the north of South-West Africa; on the 7th, a slight fall had taken place in the east, although the greater portion of the Union continued under the influence of a "high"; a "low" had appeared in the south-west of the Cape Province, with a complementary one on the coast of South-West Africa; rain had again fallen over practically the same portions of the Transvaal and South-West Africa; on the 8th, the eastern "high" had decreased by about a tenth of an inch and had increased in the west by a similar amount, whilst the "low" had moved eastwards on to the south coast; rain had fallen in part of the east and south-west of the Transvaal, the west of the Orange Free State, Bechuanaland, the northern border, Gordonia, and South-West Africa; on the 9th, the "high" over Natal had been displaced by the outer isobars of the south coastal "low" pressure had risen by about two-tenths in the west, centre, and south, causing a retreat of the nterior "low" in the west, while the axis of the latter was now lying in a north-west to south-east direction; rain had occurred over the greater portion of the Union, including the Namaqualand plateau, with the exception of the north, east, and centre of the Transvaal, Natal, and the west coast, as well as the greater part of South-West Africa; on the morning of the 10th, it was seen that a considerable rise in pressure had occurred all over the Union, with the highest reading (30·40 inches) in the south and the isobars running in a north-east to south-west direction; the distribution of precipitation was the same as on the previous day, but affected the rainless areas of the Transvaal, etc., of the previous day, although South-West Africa had continued rainless; on the 11th, the high pressure had moved slightly to the east, but was still covering the major portion of the Union, the tip of an inverted V depression was affecting the south-west Cape, and a fragment of a "high" lay over the west; in South-West Africa a "low" lay over the west coast between

Walvis Bay and Luderitzbucht; rain had fallen over practically the whole Union (with the exception of the Namaqualand plateau and coast), as well as portions of South-West Africa; on the 12th, the western "high" had advanced somewhat more to the east, the inverted V had moved to the south-east and lay off the coast, the interior "low" had protruded more to the south-east, affecting the north of the Cape, while the eastern "high" had moved eastwards, the value of the highest isobar having decreased by two-tenths; rain had fallen at a few stations in the north and west of the Transvaal, the south of the Orange Free State, Basutoland, the eastern half of the Cape and part of the northern border, and some stations in South-West Africa; on the 13th, pressure had increased considerably in the south, the western "high" of the previous day having pushed north-eastwards now covered practically the whole country, so that the isobars lay in a north-east and south-west direction with the gradients from south-east to north-west; showers had fallen along the coast, and in parts of the east and north of the Cape, Natal, the south of the Orange Free State, and west of the Transvaal; on the 14th, the highest isobar (30·20 inches) lay along the east coast, and the isobars generally had assumed a more north and south trend; pressure had fallen by about a tenth in the west and south-west; rain had fallen fairly generally over the Transvaal and parts of Zululand and Natal; on the 15th, a definite "low" had developed in the south and a V depression over the interior; pressure had increased, forming a "high" in the west, and decreased in the east by a tenth or little more in both areas; rain had fallen over the Transvaal, the west of the Orange Free State, and the centre of the Cape from the northern border to the coast; also in part of the east of South-West Africa; on the 16th, the "low" in the south had moved to a position on the coasts of Natal and Portuguese East Africa; the eastern "low" was represented by a single isobar over Southern Rhodesia and Portuguese East Africa, while the western "high" had progressed farther on to the land; rain had fallen over the greater part of the eastern half of the Union as well as over portions of the south-west and the south coast, and at some stations in South-West Africa; on the 17th, the eastern "low" was replaced by portion of a "high"; the interior "low" had pushed southwards as far as the coast and the western "low" in consequence was represented by a single isobar; rain had occurred in more or less local showers in the east, south, and west of the Transvaal, parts of Bechuanaland, and the north of the Orange Free State, as well as a few stations in the north-east of South-West Africa; on the 18th, except for a slight decrease in the east, pressure remained practically the same as on the previous day; local showers had occurred in the south of the Transvaal, the north of the Orange Free State, and the north of South-West Africa; on the 19th, a decided inverted V depression had appeared over the southern half of the Cape Province, the eastern "high" had increased in intensity, while the western "high" had retreated a short distance to the north; a few local showers were reported as having fallen in the east of the Transvaal, in part of the northern border of the Cape, and the south of the Orange Free State, as well as at some stations on the west coast; on the 20th, the southern "low" lay off the coast of Natal, the interior "low" had protruded farther south; while the western "high" had advanced a short distance eastwards on to the land, while the southern end of the eastern "high" constituted a wedge between the two "lows"; rain had fallen in the south-west of the Transvaal, the west and south of the Orange Free State, and a few stations in the east of the Cape Province; on the 21st, the eastern "low" had disappeared, pressure had fallen generally by about one-tenth of an inch, pressure was lower than the previous day over the interior, whilst the outer isobars of a "high" encircled the coasts; rain had fallen in the east of the Cape Province, the northern border, and the centre and south of the Orange Free State, also in parts of the north of South-West Africa; on the 22nd, pressure had fallen slightly all over the country, and there were indications of a "low" off the Natal coast; showers had fallen over the east of the Cape Province, Natal, the northern border, and the north central parts of South-West Africa; on the 23rd, the barometer had risen slightly in the west and east, but had fallen about a tenth of an inch on the south and south-east coast; rain had continued to fall over the same areas as on the preceding day, but had extended to the Orange Free State, Basutoland, and the south-west of the Transvaal and Bechuanaland, as well as the south and south-west coastal areas; on the 24th, pressure had increased by one and a half to two-tenths in the west and south-west, but had decreased slightly in the east and south-east, resulting in the appearance of a low-pressure area there, complementary to that over the interior; rain had again fallen over the same portions of the Union as on the previous day with the exception of Natal; by the 25th the south-east "low" had moved off; pressure had decreased slightly over the northern interior and in the west of the Union, but had risen considerably in the east and south-east, leaving an interior "low" surrounded in the west, south, and east by a belt of high pressure; the area affected by rainfall had extended to the southern half of the Transvaal, and included Zululand and Natal, in addition to the areas mentioned the previous day, with the exception of the more central portions of the innermost plateau; on the 26th, a further increase in pressure of one- to two-tenths had taken place in the south and south-east with a smaller decrease in the west and south-west; the isobars lay more in a north-east to south-west direction, forming the interior "low" more to the north-west and decreasing the area under its influence; the area over which precipitation occurred now included practically the whole of the Transvaal, but had shifted farther east in the Cape and Orange Free State, while a few showers occurred in South-West Africa; on the 27th, by far the greater part of the Union lay under the influence of an anticyclone having its highest isobars between Lourenco Marques and Durban; the barometer had fallen by about three-tenths from north-east to the south-west, where an inverted V depression had established itself, having the lowest pressure in the neighbourhood of the Cape Peninsula; the interior complementary "low" persisted over South-West Africa, being incompletely separated from the southern "low" by an intrusive tongue of high pressure from the eastern "high"; rain had fallen over the Transvaal, Orange Free State, Natal, portions of the northern border, Bechuanaland, and the north-east of the Cape Province, as well as at most stations in South-West Africa; on the 28th, the south-west "low" had moved eastwards, affecting the south and south-east of the Cape; the eastern high-pressure area had decreased slightly in intensity, while the advance portion of another "high" lay along the west coast; the interior "low" had moved some distance eastwards in South-West Africa; in the Union, precipitation had occurred over the same areas as on the preceding day, but showers had spread westward to the western border of the northern Karroo, also over the central and southern Karroos, but only one or two showers fell at coast stations and in South-West Africa; on the 29th, pressure had increased slightly in the west, but had decreased in South-West Africa, where the equatorial "low" had pushed farther south; a somewhat ill-defined "high" lay over the east of the Union, while the outer isobar of the southern "low" of the previous day skirted the coast; the rain that had fallen was confined to the south and west of the Transvaal, the north and centre of the Orange Free State, Basutoland, portions of the north-east and south-east of the Cape, the northern border, Bechuanaland, and the extreme north of South-West Africa; on the 30th, the outer isobars of a weak anticyclone covered the greater part of the Union, the interior "low" had retreated farther north, while a fragment of the coastal "low" of the two previous days remained along the east coast; rain had persisted over the same areas as the previous day, but had extended into the centre and east of the northern Karroo, the east of the central Karroo, as well as the greater part of the east of the Cape Province, where it also affected the coast stations.

Temperature.—The mean temperature over the Union during April was 63·7 degrees, or 0·2 degree in excess of normal. This small excess was due to the mean minimum temperature of 53·7 degrees being 2·8 degrees above the average, while the mean maximum of 73·7 degrees was 2·5 degrees lower than usual. An excess in the mean for the month was common to the Transvaal and Free State Provinces, the former with 63·2 degrees being 0·9 degree and the latter with 59·4 degrees being 0·6 degree above the corresponding averages. In the Cape Province the mean monthly temperature was the same as the normal, but in Natal it was 1·7 degree less than the average value. An excess in the day and a deficit in the night temperatures were common to all the Provinces. Thus in the Transvaal, the mean maximum of 73·2 degrees was 2·9 degrees less, but the mean minimum (53·1 degrees) was 4·7 degrees more than the corresponding normal values. In the Orange Free State, the mean day temperature (69·6 degrees) was 2·5 degrees lower and the mean night temperature (53·1 degrees) was 4·7 degrees higher than the corresponding averages in each case. In the Cape Province, the mean maximum temperature (74·4 degrees) was 1·6 degree in defect of the normal, while the mean minimum (53·6 degrees) was 1·5 degree higher than usual. In Natal, the mean day temperature (75·6 degrees) was 5·0 degrees in defect of the average, but the mean night temperature (58·2 degrees) was 1·6 degree in excess of its corresponding normal. Considering the individual stations, it is seen that in Natal, the east of the Free State, in Basutoland, the east of the Cape Province, and along the south coast, the mean temperature for April was lower than usual, mostly by between 2 and 3 degrees; the amounts of the deficits varied, however, between 0·2 degree at East London and 2·8 degrees at Maritzburg and Sydney's Hope. Over the rest of the country the mean values were mostly higher than usual by amounts ranging from 0·1 degree at Bethulie (Orange Free State) to 3·3 degrees at Kroonstad. Over the Transvaal and Swaziland, the monthly temperatures during April were mostly in excess by amounts in the neighbourhood of 1 degree, varying, however, between 0·4 degree at Mbabane (Swaziland) and 2·4 degrees at Standerton. A few stations, however, showed temperatures lower than usual, e.g., Belfast by 0·1 degree, Johannesburg (Observatory) by 0·3 degree, and Rustenburg by 1·9 degree. In the Orange Free State, the values for this month were in excess in the north, centre, and south by amounts varying between 0·7 degree at Bethulie and 3·3 degrees at Kroonstad, but were subnormal in the east by 0·6 degree at Harrismith and 1·2 degree at Ladybrand. In Natal, deficits, ranging between 0·7 degree at Durban and 2·8 degrees at Maritzburg, were common to all stations. In the Cape Province, small excesses of a few tenths of a degree were met with in parts of the east of Bechuanaland, but the surplus amounts were mostly between 1 degree and 2 degrees over the rest of the Province, rising to 2·2 degrees at the Royal Observatory (Capetown) and 2·8 at Kenhardt. Except in the south-west, west, and north of the innermost plateau of the Cape Province, the mean day temperatures were mostly considerably below normal over the Union, commonly by 2–4 degrees, but varying from 0·1 degree at Stutterheim to 7·7 degrees at Mafeteng (Basutoland). In the Transvaal, the deficits in the day temperatures varied from 1·3 degree at Komatipoort to 6·3 degrees at Standerton, but were mostly between 2 and 4 degrees; a small excess of half a degree was, however, shown at Barberton. In the Free State, the deficits were greatest in the east and least in the north and south, ranging from 5·1 degrees at Harrismith to 0·2 degree at Kroonstad. In Natal, the mean maxima were lower than the normals by large amounts, lying between 4·0 degrees at Durban and Hlabisa and 7·1 degrees at Weenen. In the Cape Province, the falling off of the day temperatures over the south, east, and middle was mostly between 2 and 4 degrees, but varied from 0·1 degree at Stutterheim to 4·6 degrees at Somerset East, but in Bechuanaland lay between 3½ and 5½ degrees. The excesses in the day temperatures in the Cape Province were usually much smaller than the amounts of the deficits, being greatest in the south-west, where the Capetown mean maximum was 3·5 degrees higher than usual, and least in the northern Karroo, where Kimberley was warmer during the day by only 0·2 degree. The mean night temperatures were consistently higher than usual over the Union, except along the south and south-east coast and in parts of the south-west and south-east, where small deficits of a few tenths of a degree were experienced. In the Transvaal, the excesses in the mean minima lay mostly between 4 and 7 degrees, but fell to 1·7 degree at Belfast and Johannesburg and reached 7·2 degrees at Standerton. In the Orange Free State, the mean minima varied considerably in the amount of the excess compared with the average, being mostly higher than usual by about 4 degrees, but varying from 1·1 degree at Bethulie to 6·9 degrees at Kroonstad. In Natal, the excesses in night temperatures were generally less than in the two Provinces already mentioned, being between 0·8 degree at Maritzburg and 3·0 degrees at Weenen. In the Cape Province, the mean minima were higher than usual, mostly by comparatively small amounts over the greater part of the east, west, and south-west, the excesses ranging there from 0·1 degree at Somerset East to 2·8 degrees at Aliwal North and 3·7 degrees at Port St. Johns; over the interior, however, the surplus amounts were generally larger, lying between 2·9 degrees at Kimberley and 6·0 degrees at Mafeking. The deficits in the south were mostly about a few tenths of a degree, but increased to 1·3 degree at Port Elizabeth and 6·8 degree at Sydney's Hope.

The mean warmest station during April was Komatipoort, with a temperature of 74·2 degrees, and the mean coolest, Harrismith, with 55·4 degrees, a difference to 18·8 degrees. The highest and lowest mean temperatures in each Province, together with the differences between these, were as follows:—Transvaal: highest, Komatipoort, 74·2 degrees; lowest, Belfast, 55·7 degrees; difference, 18·5 degrees. Orange Free State: highest, Kroonstad, 62·2 degrees; lowest, Harrismith, 55·4 degrees; difference, 6·8 degrees. Natal: highest, Durban, 71·7 degrees; lowest, Dundee, 63·0 degrees; difference, 8·7 degrees. Cape Province: highest, Kenhardt, 69·0 degrees; lowest, Kokstad, 57·8 degrees; difference, 11·2 degrees. The mean maxima varied between 84·0 degrees at Komatipoort and 64·1 degrees at Harrismith, a difference of 19·9 degrees; while the mean minima ranged from 65·9 degrees at Durban to 44·7 degrees at Belfast, a difference of 21·2 degrees. The highest temperatures of the month were recorded on 1st to 4th, 7th to 9th, 11th to 13th, 16th to 22nd, 24th, and 25th, but most widely on the 19th, when the extreme maxima were registered at many stations in the east of the Union. The lowest temperatures occurred on 2nd, 4th to 8th, 11th, 14th, 17th, 18th, 20th to 22nd, 24th to 26th, 29th, and 30th, but at the greatest number of stations on the 26th, when the extreme minima for April were recorded in parts of the Free State, Natal, the east of the Cape Province, and portions of the central and northern Karroo. Temperatures of 100 degrees or over were confined to the Cape Province, where 101·0 degrees occurred at Groot Drakenstein, 101·1 degrees at Capetown Observatory, and 102·0 degrees at Clanwilliam, all on the 1st. In the Transvaal, the highest temperature reading was 94·0 degrees at Komatipoort on the 9th; in the Free State, 80·6 degrees on the 17th at Kroonstad; and in Natal

91·0 degrees on the 24th at Empangeni. The lowest temperature registered was 36·0 degrees at Belfast on the 20th. The extreme minima over the other Provinces were 36·6 degrees at Bethulie (Orange Free State) on the 26th, 38·8 degrees at Graaff-Reinet (Cape Province) on the same date, and 45·0 degrees at Dundee (Natal) on the 29th. There was therefore an extreme monthly range of 66·0 degrees over the Union, of 63·2 degrees over the Cape, of 58·0 degrees over the Transvaal, of 46·0 degrees over Natal, and of 44·0 degrees over the Orange Free State.

There was an unusual absence of *frosts* during the month; the only instance of this phenomenon reported being the occurrence of two light frosts during the first half of the month at De Villiers (Division Albert); also a few light frosts at Wolvekloof, Steynsburg (date not given); slight frost on 21st at Rietfontein (Somerset East).

Precipitation.—Rainfall during April was practically general over the Union, the only area experiencing absolute drought being a long narrow strip in the west coastal division extending from north of Garies to west of Ceres, two smaller areas in the south-west, and another in the north-west of the Transvaal. The quantities recorded were unusually large for the month, in some instances constituting record amounts, while the number of rain days was also unusually large. The greater part of the summer rainfall area had quantities between 3 and 7 inches, rising above this latter figure in a few limited areas. In the northern half of the Transvaal the amounts steadied off to between half an inch and an inch, and near the western half of the Cape to less than half an inch. Compared with the normal practically the whole of the winter rainfall area, as well as portion of the summer rainfall area, consisting of the west and south of the northern Karroo, the southern Karroo, and the south coastal division, were below normal. In addition to these a narrow strip of deficient rainfall extends from the coast of Kaffraria, south of Port St. Johns northwards, increasing in width over Natal and Zululand, terminating in the east of Swaziland; a small area in the north-west of the Transvaal was also drier than usual. The largest relative excesses, amounting to more than three times the usual quantities, were met with in a small area in the north of the Transvaal, another area in the west and south of the Transvaal, continuous with a small area in the north of the Free State. Also a third and much larger, of irregular shape, extending from the south-east corner of South-West Africa in an east-north-east direction to include portion of the south-west of the Transvaal; it then turns southward to include the north-west and centre of the Free State; it then bifurcates, one portion trending in a west-south-west direction to the neighbourhood of Carnarvon, whilst the second portion after stretching to the borders of Basutoland, subsequently narrows to include only the middle of the southern section of the Free State; it then turns eastwards on both sides of the border almost to the south-west of Basutoland, and after widening considerably divides into two narrow branches, both terminating a little south of the 32nd parallel, one to the east and the other to the west of Queenstown. The average rainfall over the Transvaal was 3·40 inches, being 1·86 inch or 121 per cent. in excess of the normal. Taking the *plus* and *minus* areas separately, the average excess was 2·17 inches, while the average deficit was 0·45 inch. The whole of the Free State experienced one excess, the mean fall being 3·63 inches, or 2·01 inches above normal, equivalent to 124 per cent. In Natal, the mean precipitation was 3·24 inches, being 0·90 inch or 38 per cent. in excess of the usual amount. The excess area showed a mean surplus of 1·73 inch, and the area of deficient rainfall a mean shortage of 1·02 inch. In the Cape Province, the mean precipitation during April was 2·32 inches, being 0·64 inch or 38 per cent. higher than usual. The average excess over those areas so affected was 1·71 inch, and the average deficit over those areas experiencing a shortage of rain was 0·89 inch. A number of violent *thunderstorms* were experienced in all the Provinces. One of the most noteworthy falls this month was that at Kaallaagte No. 255, in the Potchefstroom District, where 7·14 inches fell between 3.55 p.m. and 10 p.m. on the 14th. This storm and the small hail associated with it caused considerable damage to standing crops, maize, teff, beans, etc., pans which had never been more than half full overflowed into the lands, causing quite a lot of erosion, notwithstanding the fact that the lands are fairly level. A fall of 4 inches in half an hour is stated to have occurred in the neighbourhood of Port Alfred during a thunderstorm on the 22nd, but no details are available. *Hailstorms*, some of them destructive, were reported from several stations in each of the Provinces. Several severe storms of this nature occurred in the neighbourhood of Stutterheim, causing damage to mealie and bean crops; also in the district round Queenstown. On the evening of the 11th, an intense dry thunderstorm occurred at Andriesfontein (Division Hanover); lightning struck an outbuilding, but caused no damage; this was succeeded by rain, with some hail and a very strong wind lasting two minutes. On the 13th, a severe hailstorm at Carmichael (District Barberton), lasting twenty minutes, caused severe damage to cotton. On the 24th, a severe thunderstorm with some hail occurred at Groenvlei (Frankfort Division), also at Rongpoort (Division Weenen) on the 20th, neither caused any damage. At Holpan (Bloemhof Division) a very severe hailstorm, with stones the size of pigeons' eggs, accompanied with heavy wind, lasted twenty minutes, causing considerable damage to kaffir corn, beans, etc. On the same date a severe hailstorm passed over Elladale, in the District of Thaba 'Nchu, cutting kaffir corn to shreds and leaving the mealies bare. On the 29th, two such storms occurred at Evelyn Valley; hail, mostly the size of peas, lay an inch thick on the ground, intermingled with a few stones the size of pigeons' eggs.

In South-West Africa, the rainfall was mostly above the average, except in the extreme south and south-east, the neighbourhood of Gibeon, Maltahöhi, and Voigtsgrund, and at Swakopmund. The deficits were small, varying from 0·04 inch or 100 per cent. at Swakopmund to 0·37 inch or 62 per cent. at Warmbad. The excesses were mostly between 3 and 4 inches, but ranging from 0·16 inch or 267 per cent. at Bethanie in the south to over 6 inches in the north, where Waterburg showed the largest actual surplus of 6·11 inches or 396 per cent. The average over the territory was 3·09 inches, being 2·27 inches or 276 per cent. above the average. The mean excess amounted to 2·95 inches, and the mean deficit to only 0·23 inch. The gross totals since 1st July of the previous year was generally considerably above the average, except over the greater part of the west coastal area, the south-west Cape, including the Peninsula, the west of the northern Karroo, the central and southern Karroos, the major part of the south coast and part of the south-east. In the Transvaal, the only area affected by a shortage for the ten months was the neighbourhood of Ermelo, which showed a deficit of 1·66 inch, or 5 per cent. of the normal. The excesses in the Transvaal were greatest in the north-east, in the Zoutpansberg, varying there between 23 and 33 inches, also at Komatipoort, where there was a surplus of 21 inches. Excesses of 10–13 inches also occurred in the extreme south-east and south-west. Elsewhere the surplus amounts were mostly between 3 and 9 inches, but decreased to 0·92 inch or 5 per cent. at Clermont, in the north-west. The largest excess in the Transvaal was 33·32 inches or 71 per cent. at Pigeonhole. In Swaziland, however, a still larger surplus of 47·19 inches or 92 per cent. was met with at Mbabane. In the Free State, excesses were general, being greatest in the east and least over the centre and west. The *plus* amounts varied from 3·47 inches or 19 per cent.

at Boshof to 16·09 inches or 2 per cent. at Ladybrand. In Natal, the surplus amounts were everywhere very large; they were mostly over 10 inches, but lying between 9·93 inches or 26 per cent. at Durban and 47·21 inches or or 114 per cent. at Hlabisa. In the Cape Province, the excesses were greatest (6–14 inches) in Bechuanaland, the greater part of the northern border, the east of the northern Karroo, the north of the north-east and the east of Kaffraria; elsewhere they were mostly between 1 inch and 2 inches, rising to 3–5 inches in the eastern interior. The surplus quantities ranged between 0·07 inch, or 2 per cent. above normal, at Concordia (Namaqualand) and 14·68 inches, or 57 per cent. over the average, at Kokstad. The deficits lay between 0·04 inch or 1 per cent. at Calvinia and 8·33 inches, or 26 per cent. of the average, at Wynberg.

In South-West Africa, the cumulative amounts for the period June–April were generally in excess of normal, although small areas of subnormal precipitation were found in the extreme south-east, round Rehoboth, and at Luderitz Bay. The *plus* amounts were greatest (10–16 inches) in the northern half and at Voigtsgrund, but least (1 inch to 4 inches) in the southern half. The smallest actual excess was 0·13 inch or 21 per cent. at Swakopmund, and the largest 16·43 inches or 83 per cent. at Rietfontein. The deficits lay between 0·02 inch, or 5 per cent. less than usual, at Luderitz Bay and 3·62 inches or 31 per cent. at Rehoboth.

The accumulated amounts for the first four months of the year bore the same relation to normal over the same areas as those for the longer period, that is to say, these totals were above normal except over the comparatively small portion of the Cape Province, south and west of a line drawn from Port Nolloth to the south-east coast between East London and Port Elizabeth. In the Transvaal, the only difference was that an additional small area of subnormal rainfall had made its appearance in the neighbourhood of Clermont, in the north-west. The supranormal quantities lay mostly between 2 and 6 inches, rising to double figures in the extreme east and in the Zoutpansberg. These surplus amounts varied from 0·01 inch, or less than 1 per cent. of normal, at Bethal to 6·59 inches, or 98 per cent. of the average, at Pigeonhole (New Agatha). The deficits were small, being 1·08 inch, or 8 per cent. less than usual, at Ermelo and 0·68 inch, or 7 per cent. less than the average, at Clermont. In the Free State, the surplus amounts were generally greatest in the south and east and part of the north, ranging from 9·18 inches or 81 per cent. at Bethulie in excess to 0·78 inch, or 60 per cent. above normal, at Kroonstad. In Natal, the *plus* amounts were mostly between 8 and 18 inches over the average, varying from 8·52 inches or 51 per cent. at Dundee to 30·50 inches, or 152 per cent. over normal, at Empangeni. Even this latter amount was exceeded by the surplus of 43·19 inches, or 210 per cent. over the average for the period, at Hlabisa. In the Cape Province, the excesses were mostly between 3 and 7 inches, rising, however, to 12·41 inches or 112 per cent. at Aliwal North, and decreasing to 0·17 inch or 3 per cent. at Beaufort West. The deficits varied from 0·02 inch or 4 per cent. at Port Nolloth to 4·42 inches or 48 per cent. at Driefontein (French Hoek).

In South-West Africa, the totals for these four months were above normal, except at Rehoboth, where a deficit of 1·56 inch or 17 per cent. occurred. The excesses were mostly between 4 and 8 inches, increasing to over 10 inches in parts of the northern half of the territory. The surplus amount was least (0·14 inch, or 5 per cent. in excess of normal) at Hierachabis, in the south, and was greatest (17·73 inches, or 127 per cent. over the average) at Rietfontein, in the north.

State of Country.—Transvaal : The unusually frequent and heavy rains, persistent cloudy days, with local mists and dew and an absence of sunshine, following on an exceptionally wet March, proved detrimental to most crops in the Transvaal. Mealies and kaffir corn were being considerably spoiled by the excess of moisture, the former sprouting in the cobs in a number of places. In the Rustenburg and Witwatersrand Districts tobacco crops were being drowned and losing colour. Hay and teff were also being wasted, as farmers were unable to enter the lands to reap. Mealie stalks were rotting in parts of Standerton District, thus decreasing the winter feed for stock. Beans were also affected to a considerable extent, and potato crops were almost ruined. In the Waterberg District particularly, monkey nuts were being discoloured. The persistent moisture interfered with cotton picking. It was reported from Pigeonhole, in the Zoutpansberg, that both cotton and nut crops were mostly reduced by about two-thirds, and in some cases the cotton crop was entirely lost ; in the Barberton District few localities escaped the ravages of the Jassid fly, which was doing a lot of damage to cotton. The unusual rains, however, enabled a good deal of ploughing and sowing of winter crops to be carried out, so that a good wheat return was anticipated. Generally speaking, veld grazing was abundant and still green, so that cattle generally were in good condition. Stock, however, were beginning to suffer from the unusual dampness in Carolina, Lichtenburg, Standerton, and Witwatersrand Districts. Horse-sickness was still productive of many deaths at Ermelo. In *Swaziland*, a loss of 90 per cent. of most crops was reported, while malaria was prevalent.

Orange Free State : The same unusually moist, cloudy, and sunless conditions prevailed during April over the Free State as in the Transvaal with similar results, that is to say, farming operations retarded ; reaping suspended owing to saturated condition of the soil, or carried on only with difficulty ; forage crops deteriorating rapidly where uncut, and rotting where cut and still lying exposed ; mealies sprouting in the cobs or getting mouldy ; potatoes turning bad, etc. Notwithstanding these unfavourable conditions, however, as stated by the observer at Kroonstad, the crop is well assured and bound to be a bumper one in that district. In all probability a similar result may be looked for from other areas. In some places winter crops of rye, oats, etc., had been put in and come up well, so that there was reason to anticipate a good wheat season. Grazing was still green and plentiful, although at Vaalbank (District Edenburg) the veld grass was lying down and rusty in places. Stock were mostly in good condition, although sheep were feeling the effects of the continuous wet weather. Blue-tongue and horse-sickness were still prevalent in the Districts of Frankfort and Hoopstad, but the losses were slight in the former ; blue-tongue had also made its appearance in the Lindley District. A few cases of hairworm were reported from the Boshof District. Owing to the winter feed being damaged to a considerable extent there was danger of a shortage should the winter prove severe.

Natal : Owing to the absence of real drying weather all forms of agriculture were very backward. At Mid-Illovo the early maize was spoiled as a result of the previous month's rain. At Bluebank (Division Ladysmith) the late mealies were killed by the borer ; the ripening of maize generally was dealyed owing to the absence of sunshine. At Middleton a large proportion of the cobs were rotten, while pumpkins and beans were a failure owing to excessive moisture. Harvesting and hay-making were either impossible or seriously hindered owing to the sodden condition of the soil. At Ladysmith a good deal of hay had been spoiled by the rain. Veld grazing was mostly good and plentiful, but was stated to be going off at Nottingham Road. Stock generally were healthy, but blue-tongue and horse-sickness were reported to be bad in Ladysmith District; horse-sickness was also present to a slight extent at Mid-Illovo, Nottingham Road, and Paddock.

Cape Province.—Although the crops in the east and in the northern border and Bechuanaland were unusually good, fears were expressed that they would be ruined unless a spell of fine, dry weather ensured at an early date. In fact, in some areas the mealies and kaffir corn were considerably damaged, e.g. in the Aliwal North, Stutterheim, and Mount Fletcher Districts, through excess of moisture; in Komgha mealies were laid low by strong winds; at Queenstown they were suffering from rust, while hail was another cause of damage to mealies and beans at Stutterheim. In Komgha beans had also suffered badly and the cotton crop was practically ruined. Record crops, however, were expected by the natives in Bechuanaland at Mochudi; excellent crops were being reaped in the Hay Division, and in Steynsburg the mealie crop was good; in fact, the crops were the best for many years in some areas. Wherever the ground was sufficiently dry, ploughing and the sowing of cereals was being carried on, e.g. in Pearston and parts of Riversdale, but in other areas the soil was still too wet to plough. In the Albert Division green stuff for winter feed was adversely affected by the excessive rain, while the relatively cool weather at Somerset East had retarded the growth of grass. In the south-west the month was exceptionally dry; very windy, "south-easters" persisting later than usual; only slight rains or drizzles, insufficient to wet the soil, had fallen, so that the outlook for the lambing season was by no means bright. In the north, centre, and east the veld was in excellent condition, and a good lambing season was anticipated at Kenhardt. In parts of the Aberdeen District much more rain was required to enable farmers to carry on throughout the winter. Horse-sickness was reported as still prevalent to a greater or less extent in the Barkly West, Vryburg, and Hay Divisions, but principally in the two last. In Hanover the maggot fly was severe amongst sheep, attacking even young lambs a few days old. Fever amongst sheep had not yet abated in Komgha District, while there was considerable mortality amongst calves there. Blue-tongue was severe in Hay Division. Otherwise cattle were in good condition and sheep in fair to good state. Horse-sickness was prevalent in Bechuanaland. Taken as a whole, the greatest need was for a fairly long spell of dry, warm, sunny weather to dry the crops and enable harvesting to be carried out.

Water Supply, Rivers, etc.—Transvaal: As the result of the heavy, continuous rains, a good water supply was assured for the winter. In the Pretoria District springs were starting in new places, old springs were stronger than for ten to fifteen years past. Thus springs could be seen all over the townlands of Pretoria. At Kaallaagte No. 255, in the Potchefstroom Division, pans which had never been more than half full overflowed into the lands, causing a great deal of erosion, although the lands were fairly level. In Barberton District the roads were exceptionally bad, whilst in parts of Standerton they were impassable, people being cut off from the post for days at a time. In Rustenburg and Barberton the rivers were full and running strong, whilst at Pigeonhole (Division Zoutpansberg) the streams were back to the 1917 level. Although the ground was sodden in the Middelburg Division, the rain was welcomed by wheat farmers, as water would be plentiful all winter for irrigation purposes. At Rongpoort, in Natal, the ground was saturated with the rain. In the Cape Province, the good rains following on those in March ensured the water supply for months. Floods are stated to have occurred in the eastern district. In Aliwal North and Barkly East Divisions dams were broken or damaged, while in Middelburg all storage dams were full. In Barkly East the rivers were still overflowing at the end of the month, hindering traffic considerably; the postal service from Elliot had been dealyed for days at a time, owing to the Langkloof River being flooded. The Little Brak River (Division Middelburg) was flowing continuously throughout the month. At Sydney-on-Vaal the river maintained an abnormal level, even rising slowly and steadily at the end of the month, where it is usually 4–5 feet lower in a normal year. At Louisvale (Kenhardt Division) the Orange River was in flood at the highest level known in the history of the river. All irrigation schemes sustained serious damage, in some instances irreparable. The Orange River at Upington was stated to be slowly subsiding at the end of the month. In Bechuanaland, the Notwani River at Gaberones was still running strong, so that water was expected to continue in it all winter. From Mafeteng, Basutoland, it was reported that dams were overflowing everywhere, lands flooded, and the country thoroughly soaked.

OBSERVERS' NOTES FOR APRIL, 1925.

Transvaal.

West End Plantation (*Pretoria*).—Owing to the continual rains during the last few days springs can be seen all over the townlands. Cattle are in good condition. The growth of young eucalyptus this season is wonderful for Pretoria. Rainfall: 5·29 inches on thirteen days.—W. H. Foster.

Barberton.—Very changeable weather throughout the month. The Jassid fly has, unfortunately, done a lot of damage to the cotton crops, very few localities in the district escaping. Rainfall: 1·69 inch on eight days.—Walter Grubb.

Carolina.—Very wet and cloudy month, with hardly any sunshine. Bad for cattle and for crops, which now require dry weather. Roads exceptionally bad all over, and rivers full. No sign of frost as yet. Farmers hoping for dry weather to reap. Rainfall: 3·03 inches on twelve days.—G. F. Mynhardt.

Ermelo.—The weather has been remarkably mild the whole month. No frosts have occurred as yet. Horse-sickness is still causing many deaths, and frosts are eagerly awaited. Rainfall: 2·70 inches on thirteen days.—J. Dean.

Rietvlei No. 102 (*Ermelo*).—On the whole a cold, cloudy, wet month, with little sunshine. Rainfall: 2·78 inches on thirteen days.—P. J. Steenkamp.

Gemboksfontein (*Middelburg*).—The weather was cloudy at the beginning and end of the month, with thick mists in the morning. A few mornings felt as if frost was not far away. Rainfall: 3·57 inches on twelve days.—L. C. Skead.

Middelburg (*Afrikaans-medium School*).—A wet and cool month, but not cold. Sun hot only on a few days, as sky was generally overcast or cloudy. Wind very changeable, but mild. Rain in this month is very welcome to wheat farmers, as water will then be plentiful for irrigation all winter. No locusts. Rainfall: 3·47 inches on ten days.—The Principal.

Potchefstroom (*Experimental Farm*).—Month characterized by cloudy, cool weather, with rain which came in showers. Some thunderstorms. Rainfall: 3·35 inches on fourteen days.—J. G. F. Mostert.

Pretoria (*Transvaal University College Experimental Farm*).—Splendid rains, well distributed, fell during the month, which augurs well for winter crops. Kaffir corn has been damaged to a certain extent through the continuous rains, but the veld is in pink of condition, and stock are doing well.—The Manager.

Pomono Estates (*Pretoria*).—Heavy rains towards end of month, damaging crops. No frosts, nights fairly mild. No storms. Rainfall . 3·76 inches on eleven days.—E. A. Clark

Bralbin (*Rustenburg*).—Weather for this month has been abnormal in rainfall, and lower temperatures than usual have been experienced. Heavy dews and mists every morning till 7 a.m., with low vapour clouds. Several mealie and kaffir-corn lands have been spoiled by rains. Mean maximum temperature, 76·2 degrees ; mean minimum temperature, 53·9 degrees ; highest maximum temperature, 84·0 degrees on 17th ; lowest minimum temperature, 46·0 degrees on 24th. Rainfall · 4·63 inches on ten days.—R. C. S. McPherson.

Rustenburg.—Steady rains fell throughout the month, and during the latter part great damage was done to crops—cotton, tobacco, and kaffir corn. Rivers and fountains are running strong, and there is every prospect of a good wheat crop this winter. Farmers are busy ploughing and sowing wheat, oats, etc. No locusts have been reported in the district. Rainfall : 3·87 inches on twelve days.—H. J. Streatfield.

Arbury (*Rustenburg*).—During month very heavy dews fell, retarding cotton harvesting. Rivers continually full and crossed with difficulty. Towards end of month days rather cold. Rainfall : 5·42 inches on nine days.—J. F. Mills.

Kopje Alleen (*Waterberg*).—Compared with April, 1924, the mean temperature was 1·3 degree warmer, the mean minimum 5·7 degrees warmer, the mean maximum 3·1 degrees colder, whilst there was a drop of 8·8 degrees in the mean range. The rainfall (2·31 inches on ten days) is the heaviest for the month for seven years. Four successive rainy days—25th to 28th—have never before been experienced here in April. During this spell the maximum only registered 62·7 degrees, 62·2 degrees, 62·6 degrees, and 70·0 degrees. Mean rainfall for April is 0·78 inch on five days. Since 1st July, 1924, 26·92 inches on ninety-one days have been recorded, against a mean of 25·88 inches on sixty-nine days. The rain has damaged materially the monkey-nut crop, which on some farms is not yet all in. Cotton and maize also have had more than enough moisture, and bright sunshine is now required. Ploughing, which is in full swing, has been helped by the abnormal rains of March and April.—J. Lyall Soutter.

Nooitgedacht (*Waterberg*).—The month unusually cold and wet, with little wind in the latter half. Rain interfered with cotton picking. Cattle looking well. No locusts. Seasonal rainfall to end of month, 28·84 inches. Rainfall : 3·91 inches on twelve days.—G. Gordon Brown.

Mosdene (*Waterberg*).—Remarkable for the amount of rainfall and the number of cloudy days. Total rainfall for the month, 2·04 inches on seven days, as against an April average for the previous seven years, 0·37 inch. Total sunshine for the month, 184 hours only, against an average of 292 hours Total rainfall since 1st July, 1924, 25·97 inches.—Ernest E. Galpin.

Krugersdorp.—The month has been dull and wet, the amount of sunless weather being unusually great for this period of the year. The mean average temperature was 58·4 degrees, or fully 2 degrees under the average. Like the preceding month of March, the rainfall was a record for April during the period that records have been kept here. Rainfall : 4·69 inches on sixteen days, against an average of 1·34 inch during the past twenty-two years.—H. Sharp.

Pietersburg.—Bright, calm days. Cool nights. Rainfall : 0·95 inch on four days.—W. J. Frankleyne.

Pigeonhole New Agatha (*Zoutpansberg*).—Continuous damp mist and rains have practically reduced the cotton crops by two-thirds, in some fields total loss. Nut crops also reduced by two-thirds. Streams back to 1917 level. Rainfall: 5·25 inches on ten days.—Jno. McCallum.

Carmichael (*Barberton*).—13th, severe hailstorm from 5 p.m. to 5.20 p.m. Severe damage to cotton. Rainfall: 2·39 inches on seven days.—W. Walsch.

Holpan (*Bloemhof*).—25th, very severe hailstorm, stones size of pigeons' eggs, with terrific wind, lasted twenty minutes. Considerable damage to kaffir corn and beans. Rainfall: 4·00 inches on seventeen days.—W. H. Hambly.

Davel (*Ermelo*).—All crops are suffering from rains and absence of sun. Potato crops practically ruined by the wet soil. Rainfall: 5·61 inches on seventeen days.—H. A. Wollenburg.

Vlaksplaats No. 277 (*Heidelberg*).—Rain is damaging all crops and wasting the winter feed for cattle. Frost will be welcomed. Rainfall: 3·06 inches on ten days.—B. H. Drieband.

Blaauwwildebeestput (*Lichtenburg*).—Crops not doing well. Stock also beginning to suffer. Rainfall: 5·11 inches on thirteen days.—C. Hull.

Waterpan (*Middelburg*).—Country is saturated. Maize growing in the cob. Rainfall: 3·39 inches on six days.—H. McDougall.

Elandsfontein (*Potchefstroom*).—Good wheat year. Rainfall: 3·13 inches on fourteen days.—P. Davidtz.

Kaallaagte No. 255 (*Potchefstroom*).—14th, 7·14 inches from 3.55 p.m. to 10 p.m. Tremendous damage to standing crops, viz., maize, teff, and beans. Hail, the size of peas, fell at intervals and knocked maize leaves to shreds. Pans which have never been more than half full overflowed into the land, where quite a lot of erosion took place in spite of the lands being fairly level. Rainfall: 10·09 inches on fourteen days.—L. J. Erasmus.

Ons Plaas.—Mealies growing on the cob, owing to excessive moisture. Rainfall: 5·05 inches on thirteen days.—H. Lubbrand.

Lynnwood (*Pretoria*).—Much damage to hay and farm work held up owing to heavy rains. All land sodden, and springs starting in new places; old springs stronger than they have been for ten to fifteen years. Rainfall: 4·36 inches on thirteen days.—F. Struben.

Olifantspoort (*Rustenburg*).—Tobacco crop suffered severely through drowning, and losing colour owing to excessive moisture. Rainfall: 4·33 inches on fifteen days.—A. F. Retief.

Ganskuil (*Rustenburg*).—Great damage done to crops by rain. Rainfall: 7·99 inches on twelve days.—S.A. Police.

Paardekop (*Standerton*).—The mealie stacks are rotting owing to the continuous rains, hence there will be no winter fodder. Rainfall: 2·98 inches on eleven days.—P. B. du Plessis.

Cranbourne (*Standerton*).—Farm work on land impossible owing to saturation of previous month. Large quantities of hay crops ruined. Rainfall: 2·44 inches on ten days.—A. B. Barrow.

Weltevreden (*Standerton*).—Teff and potato crops are almost ruined. Road impossible for travelling, cut off from the post for days. Stock suffering from the rains. Rainfall: 4·42 inches on thirteen days.—D. Lane.

Grootvlei (*Waterberg*).—Peanuts and mealies have suffered here from too much rain. Rainfall: 3·63 inches on six days.—A. Berrange.

Woburn (*Waterberg*).—Wet month, with heavy dews, which only dry up about 11 a.m. Monkey nuts out of husks are mildewed. Rainfall: 3·65 inches on six days.—C. W. Brumage.

Elandshoek (*Waterberg*).—Crops generally are not going to be as good as were expected in the early part of the season, owing to rains and cloudy weather. Rainfall: 4·24 inches on seven days.—Mrs. H. Vickers-Strutt.

Nooitgedacht (*Witwatersrand*).—Stock suffering, especially sheep, from too much rain. Farmers are experiencing great hardships. Tobacco crops spoiled. Rainfall: 6·01 inches on twelve days.—H. C. Hinds.

SWAZILAND.

Matendele.—Owing to the rains in March, 90 per cent. loss of most crops is generally reported. Malaria prevalent. Rainfall: 1·86 inch on eight days.—H. S. Parry.

ORANGE FREE STATE.

Holfontein (*Kroonstad*).—A remarkable month, very few sunny days. Farmers are having a struggle to get their winter feed off the land. The winter feed has been very much damaged. Mealies are fine and can do with some sun now. Rainfall: 3·60 inches on eight days.—L. C. McInerrey.

Groenvlei (*Frankfort*).—The month has terminated without any frost having occurred, although the weather has noticeably become cooler. On the 24th a severe storm, with hail, passed over; hail not severe, and no damage done. All maize is now ripe. Blue-tongue and horse-sickness are still prevalent; losses from these diseases are very light, however. Grazing very abundant and still green; all classes of stock in good condition. Sheep are feeling effects of continuous wet weather. Forage crops a failure, lands too wet to cut, and what has been cut is now rotting in the lands. The fear exists that carting maize out of lands will be very difficult and in many instances impossible. Rainfall: 1·89 inch on eleven days.—B. Stollreither.

Modderpoort.—It has been a beastly month. Farmers could do nothing. The amount of grass, teff, etc., they have been able to cut is all rotten. Lands are in a boggy state; potatoes are either bad or fast becoming so, and all on 2·90 inches of rain, which fell on eleven days.—J. E. Berry.

Lindley.—There has been more rain during this month than during any April since 1912. It is very serious for farmers, owing to their being unable to enter the lands to get the crops out. Rainfall: 3·22 inches on fourteen days.—D. Murphy.

Kroonstad.—The leading feature of the month has been the number of cloudy and overcast days. A few days without precipitation, although the atmosphere was moisture laden at all times. Farming operations have been retarded, while various reports have come to hand of mealies sprouting in cob. The crop in this district is, however, well assured, and is bound to be a bumper one. Rainfall: 3·51 inches on sixteen days.—A. C. Mason.

West Hartebeesthoek (*Bethlehem*).—The whole month was hot and every day cloudy. No hail or storms. Crops are far advanced, almost ripe. Here and there patches of mealies still green in stalks. Very difficult to get hay out of lands on account of too much rain. Rainfall: 2·27 inches on nine days.—J. G. Bester.

Sterkstroom (*Boshof*).—Veld still green. Stock in good condition; few cases of hairworm. No frost. Rainfall: 3·75 inches on seven days.—J. B. Moolman.

Vaalbank (*Edenburg*).—Too much rain. Veld grass lying down and rusty in places. Agricultural lands sodden. Rainfall: 4·21 inches on eight days.—W. Callender-Easby.

Wynberg (*Harrismith*).—Ground is in very sodden condition and mealies on the cob are germinating, some getting mouldy. No signs of frost at end of month. Potatoes are rotting in the ground. Rainfall: 1·88 inch on ten days.—John McClelland.

Heilbron.—Maize crops suffering owing to stalks rotting in ground and falling, also instances of grain sprouting from cobs. Several cases of horse-sickness. All other stock in fine condition. Rainfall: 4·32 inches on fourteen days.—P. A. du P. Naudé.

Roodepoort (*Hoopstad*).—Horse-sickness and blue-tongue amongst sheep very severe. Kaffir corn and mealies very damp in the cobs—prevents reaping. Rainfall: 3·50 inches on seven days.—P. E. Mooy.

Witkop (*Kroonstad*).—Although rain fell on ten days of month, there have been not more than seven days' sunshine. Crops very backward in consequence. Rainfall: 3·45 inches on ten days.—H. Smith.

Rafidim (*Ladybrand*).—Considerable damage done by rain. Mealie cobs beginning to grow on lands. Teff uncut—lands inaccessible. Sheep in poor condition. Rainfall: 3·86 inches on thirteen days.—R. J. Louw.

Kismet Estate (*Lindley*).—Nearly every shower accompanied by severe lightning. Blue-tongue among sheep. Teff crop almost entirely ruined by sodden state of land—preventing mowing. Rainfall: 2·92 inches on thirteen days.—W. F. Austin.

Elladale (*Thaba 'Nchu*).—In April eleven days of rain, which has been more than anxiety to the farmer. Beans are past harvesting. Mealies blown down are growing. Teff inferior. On the 25th a severe hailstorm passed, cutting the kaffir corn to shreds and leaving the mealies bare. Rainfall: 6·63 inches on eleven days.—J. Turner.

Unity (*Winburg*).—Some rye and oats have been put in and have come up well and look promising. It promises to be a good wheat season. Rainfall: 1·76 inch on eight days.—F. E. Parker.

NATAL.

Dundee.—Very little real drying weather during month; everything backward in the agricultural line. Rainfall: 2·80 inches on fourteen days.—West Thorrold.

Hillcrest.—Old local residents state cold and damp unusual for time of year. Generally cloudy, with fine intervals of bright sunshine. Rainfall: 2·26 inches on fourteen days.—T. Dawson Clothier.

Mid-Illovo.—Early maize spoiled with last month's rain. Horse-sickness about. Stock in fair condition and grazing good. Rainfall: 1·51 inch on ten days.—Lt.-Col. J. W. V. Montgomery, C.M.G., D.S.O.

Nottingham Road.—Cold, dull days. Harvesting impossible. Stock healthy. A little horse-sickness. Veld going off. Rainfall: 3·72 inches on nineteen days.—Miss E. Smythe.

Paddock.—Some very cold days, and it is evident that winter is on us. The heavy rains have affected the ripening of mealies considerably. Horse-sickness has not visited us much, and it looks as if we shall escape a serious outbreak like last year. Rainfall: 1·29 inch on eight days.—G. V. Merriman.

Greytown.—Better weather this month, but the evenly distributed rainfall prevented ground drying up. Transport and hay-making interfered with in consequence. Rainfall: 4·16 inches on thirteen days.—J. M. Handley.

Hillary.—The lowest rainfall (1·06 inch on thirteen days) in April since 1918. The sunshine the lowest since I have been recording, and very materially below the average.—H. A. Thorpe.

Ladysmith.—Farmers complain that a good deal of hay has been spoilt by the rain. Sunshine is badly needed. Rainfall: 3·64 inches on fourteen days.—D. A. R. Leathern.

Maritzburg (Mental Hospital).—Genial weather throughout the month. Feeding for stock plentiful. Rainfall: 2·52 inches on eleven days.—The Staff.

Bluebank.—Horse-sickness and blue-tongue very bad. No frost yet. Crops damaged and all late mealies killed by borer. Rainfall: 1·97 inch on fourteen days.—T. N. Niland.

Rongpoort.—Still exceedingly wet; ground full up with rain. Crops suffering and at a standstill for want of sun and warmth. Slight fall of hail on 20th. No damage. Rainfall: 3·25 inches on ten days.—Jas. H. Bartholomew.

Middleton.—Beans, etc., total failure. Maize good, but large proportion of cobs rotten through excessive rain. Pumpkins failure. Stock fat. Rainfall: 2·85 inches on ten days.—O. L. Nel.

Summerford.—A dull, cold month. Everything seemed set back by want of sun. Rainfall: 2·35 inches on eleven days.—Douglas Campbell, J.P.

CAPE PROVINCE.

Somerset East.—Splendid rains, following upon the abundant rains of March, have assured the water supply for months. But the weather has been very cool, and this has adversely affected the growth of grass. Nevertheless, the gloomy prospect at the end of February has been dispelled. Rainfall: 3·67 inches on thirteen days.—C. Harris.

Mount Fletcher.—Rainfall, 3·26 inches on seventeen days—quite unusual for this month. Farmers in the district fear disaster to their fine crops, etc., unless we have a stretch of fine weather and plenty of sun. The mealies and kaffir corn will be ruined, as they are beginning to rot away on account of too much rain. Veld still green and plenty of feeding for the cattle, etc. No frost recorded this month.—J. McDougall.

Tsolo.—Rain, 3·16 inches on fifteen days. It has been a warm rain, and the stock are having a grand time in the grass. All are fat and jolly; no diseases.—H. P. Tilland.

Queenstown.—No frosts yet; a typical autumn month. Weather favourable for ripening the mealie crop and sowing of wheat, etc. Rainfall: 3·90 inches on sixteen days.—J. F. C. Rein.

Sandflats (Mount Currie).—*Live stock:* Cattle still very good. Sheep fair to good; abatement of blue-tongue. *Veld:* Still green and very good for time of year. Generally the weather has been dull and overcast sky for most part of month, with prevailing wind south-east. *Temperatures:* Mean maximum, 67·7 degrees; mean minimum, 47·6 degrees; highest maximum, 78·0 degrees on 19th; lowest minimum, 40·0 degrees on 26th. Rainfall: 2·06 inches on seven days.—Hewson B. Corderoy.

Cathcart.—Good rains fell during the month. Rainfall: 3·68 inches on nine days.—C. E. Whibley.

Port Alfred.—Warm days and cool nights during month. Weather generally fine, some showery days, which have improved condition of veld, gardens, orchards, and stock. On the 22nd a terrific thunderstorm broke over lighthouse and vicinity one to five miles east; 4 inches of rain in half an hour. Rainfall: 2·35 inches on twelve days.—W. H. Pascoe.

Liwandi, Addo (Uitenhage).—One of the most pleasant months experienced at Addo during the last five years. Genial weather was the order, and there was an absence of strong winds. Rainfall: 1·79 inch on twelve days.—Major J. Kreft.

Kraaipan (Mafeking).—This month was exceptionally wet and cloudy, with light winds generally from the north-east and north-north-east. Rainfall: 5·29 inches on sixteen days, as compared with 0·25 inch on three days for corresponding month of last year.—P. J. Hart.

Louisvale (Kenhardt).—The month opened with the Orange River in flood, recording the highest mark in the known history of the river. All irrigation schemes sustained serious damage, in some instances irreparable. Violent storms and heavy rains fell during the month in surrounding districts, although Louisvale rainfall is not large. Veld is in excellent condition, and farmers are anticipating a good lambing season. Rainfall: 1·56 inch on six days.—Stuart N. Smith.

Rietfontein (Aliwal North).—Abnormally wet month. Much damage to dams and crops. Highest previous rainfall for April, 3·95 inches. Rainfall: 9·81 inches on seventeen days.—A. G. Smith.

Sydney-on-Vaal (Barkly West).—Damp weather conditions throughout month. Frequent heavy dews. Rivers maintained at abnormal level, and even rising slowly and steadily at end of month, when it is usually 4 or 5 feet lower in a normal year. Horse-sickness very severe. Rainfall: 3·25 inches on twelve days.—J. G. Richards.

Storms River.—With the exception of a few dull days, very fine weather was experienced, and a good amount of rain fell. Rainfall: 4·46 inches on eight days.—H. Meyer.

Evelyn Valley (Kingwilliamstown).—On the 29th we had two hailstorms here. Hail about 1 inch thick on ground, mostly the size of peas, but there were a few the size of pigeons' eggs. Rainfall: 11·01 inches on seventeen days.—R. G. Murray.

Andriesfontein (Hanover).—On the evening of the 11th an intense dry thunderstorm; lightning striking an out-building, but no damage; afterwards rain with some hail and very strong wind, lasting about two minutes. Lightning very severe for time of year. Maggot fly very bad. Rainfall: 3·39 inches on eleven days.—H. van der Merwe.

Riversdale.—During the month the mornings were exceptionally misty; thunder on two days during the month. In some parts of the district farmers are busy ploughing. Rainfall: 1·05 inch on nine days.—Rev. Martin Johnson.

Grootfontein (Middelburg).—The rainfall this month (3·16 inches on eleven days) compares well with April, 1921, with 2·79 inches. Veld beautiful. Late in the month there were thunderstorms in the vicinity, and a few locally. It appears that the surrounding country has had more rain than this station. Little Brak River has been flowing continuously. Farmers' storage dams are all full.—E. J. van Meerten.

Keerweder (*French Hoek*).—A very dry month and very windy; the south-easter persisting much later in the season than normal. Rainfall: 1·46 inch on seven days.—P. Eglinton.

Darling (*Malmesbury*).—Practically no rain—0·29 inch on two days—during the month, the amount recorded being only a light drizzle, which hardly damped the ground. With the very dry summer and extreme heat in February and March the earth is exceptionally parched, many trees in the village have succumbed. The commencement of our winter rain is now anxiously awaited. Rainfall: 0·29 inch on two days.—P. H. Drake.

Nelspoort (*Beaufort West*).—The month was characterized by dampness. The atmosphere was "raw," and although the minimum temperature was not low, the weather appeared cold. From a farming point of view the veld is good, although signs of approaching winter are evident. Rainfall: 1·25 inch on three days.—Dr. Peter Allan.

Aliwal North.—Unusually wet for April, 6·65 inches having fallen on fourteen days. A great deal of thunder and lightning.—Alex. Alcock.

Vryburg.—Farmers are wanting sun to ripen crops and to reap some. Cold weather for few days. Frost wanted to stop horse-sickness. Ground sodden, and veld looking grand.—Sergt. H. White.

Upington.—Orange River subsiding slowly. Two large and several small swarms of locusts flying over town and vicinity to the east. Veld in splendid condition. Rainfall: 2·72 inches on eight days.—F. W. J. Schmidt.

Stutterheim.—Several severe hailstorms in neighbourhood. Mealie and bean crops injured by hail and excessive amount of rain. Rainfall: 4·73 inches on fourteen days.—F. C. Bousfield.

Queenstown.—A month of showers and storms, chiefly in the evening. No hail in town. Several severe hailstorms in district. Ground too wet to work; preparations for sowing cereals made. Mealie crop suffering from rust. Rainfall: 3·47 inches on sixteen days.—H. Holley.

Kimberley.—A good month, quite a number of nice showers. Nights and early mornings chilly. Rainfall: 3·02 inches on twelve days.—C. H. Dowler.

Kokstad.—Very few cloudless days, only six. No frosts. Rainfall: 2·59 inches on thirteen days.—H. D. Coyte.

Graaff-Reinet (*The Convent*).—A pleasant month, with frequent deposits from dew and mist. Thunderstorms accompanied by light showers occurred on several days in the afternoon. Winds chiefly from the north-west. Rainfall: 1·29 inch on eleven days.—The Mother Superior.

Bedford.—A great drop in temperature, lack of sunshine, and rain. Rainfall: 3·80 inches on seventeen days.—Thos. C. Hall.

Tussenbeide (*Caledon*).—This part of district still very dry, veld bad; bad outlook for lambs. Rainfall: 0·70 inch on three days.—S. de Wet.

Chelmsford (*Aberdeen*).—Much more rain is needed to carry on through the winter. In parts of the district some dams hardly have any water in. Over parts of district heavy storms fell. So far very little damage was done by hail or otherwise this season. Rainfall: 1·41 inch on five days.—F. Hayward.

Rietfontein (*Somerset East*).—Slight frost on 21st. Winter setting in. Rainfall: 1·35 inch on eight days.—H. J. Pieterson.

Bruintjes Hoogte (*Pearston*).—Veld is in good condition. Everybody putting in winter crops—oats, barley, and wheat. Rainfall: 2·98 inches on ten days.—E. S. Miller.

Wolvekloof (*Steynsberg*).—A few light frosts occurred during the month, but resulted in no damage being done. No cases of horse-sickness. Mealie crop good. All cattle in good condition. Rainfall: 3·17 inches on nine days.—J. Kruger.

Droogefontein (*Hanover*).—Blowfly very bad amongst sheep, even attacking young lambs a few days old. Rainfall: 3·59 inches on twelve days.—Lindsay Bros.

Vergenoeg (*Cradock*).—The north-east trade wind blew almost continuously this year, resulting in steady rains and flood along eastern districts. Rainfall: 2·20 inches on seven days.—W. du Plessis (D.'s son).

Peisterton House (*Hay*).—The veld is in prime condition, but farmers have lost heavily in horse-sickness, and blue-tongue has been very bad in places, many deaths occurring. Sheep have fallen off in condition owing to exceptional rains. Very heavy dews have fallen during month. Some excellent mealie crops are being reaped, the best for many seasons. Rains have been accompanied by lightning and very heavy thunder at times. The district is being heavily invaded by flying swarms of locusts from the Kalahari and Gordonia. Rainfall: 4·16 inches on ten days.—Capt. Dering Addison.

Hopewell (*Stutterheim*).—Splendid stand of mealies, but many rotting owing to too much wet. Rainfall: 3·05 inches on twelve days.—J. W. Whittal, jun.

Woolhope No. 282, *Komgha*.—Rainfall for April is heaviest since 1921. Crops and stock have suffered from excess of rain. Bean crops have suffered badly. Mealies have been laid low by heavy windstorms. *Sheep:* Fever not yet abated. *Cattle:* Calves not thriving well and mortality high; big cattle doing well. *Horses:* No horse-sickness so far. Cotton crops practically ruined. So far winter not started, but grazing will be plentiful and good, and a good spring should follow. Locusts nil. Rainfall: 4·22 inches on fifteen days.—T. Cronwright.

De Villiers (*Albert*).—Couple of light frosts during first part of month, no damage to crops or vegetables; no further frosts up to 1st May, 1925, Rainfall: 3·93 inches on ten days.—F. E. Groch.

Vineyard (*Albert*).—Veld thoroughly saturated. Roads almost impassable. Cattle in fairly good condition. Sheep beginning to suffer from excessive rains. In most cases farmers unable to reap winter feeding. Several dams broken. Rainfall: 9·38 inches on fifteen days.—C. J. Hoar.

Belleville (*Barkly East*).—This has also been a very wet month, and rivers are still overflowing, which makes traffic very difficult; the post service from Elliot to Barkly East has been delayed for days at times, on account of the Langkloof River being flooded. Rainfall: 6·74 inches on fifteen days.—S. J. W. Vorster.

Hoogstede (*Albert*).—The excessive rains have had a very bad effect on small stock and also on the green stuff intended for winter feeding. All the farmers are anxiously yearning for fine weather, as most of them haven't sown wheat yet and the lands are too wet to plough. Rainfall: 4·71 inches on twelve days.—S. G. Griesel.

Damplaats (*Albert*).—The veld and lands are much too wet for work to be carried on in them. Sowing has not yet taken place. Rainfall: 4·87 inches on fourteen days.—A. Kruger.

Umzimkulu (*East Griqualand*).—Steady rains throughout the month. Cal generally. If any wind at all, it was from the south. Rainfall: 14· inches on twenty days.—Mrs. H. K. Dell.

Verona (Vryburg).—The rainy season will soon be over now, and a feature that was noticeable was the absence of thunder and lightning—not total absence, but very little indeed. Rainfall: 3·89 inches on fifteen days.—T. Rodger.

BECHUANALAND.

Mochudi.—Veld in excellent condition. Record crops expected by natives. No sign of locusts. Rainfall: 3·14 inches on six days.—Rev. J. Reyneke.

Dikgatlong Ranch (Tuli Block).—Very seasonable month. Most days cloudy. Veld very good. No locusts. Rainfall for season, 20·24 inches. Rainfall: 1·02 inch on six days.—Paul Jansse.

Gaberones.—During the month we had 6·91 inches of rain on twelve days. This is most unusual for this time of the year, as the largest rainfall recorded for many years is only 0·24 inch (in April, 1923). The veld is in excellent condition. Crops are good. Stock in excellent condition. Horse-sickness accounted for at least three of our horses in camp. The weather is still threatening. Heavy dews. The Notwani River is still running strong, and we expect to have water in it during the winter. This is most unusual, as the river is generally dry at this time of the year.—Andrew McKenna Boyle.

Kalamari.—Veld never better in condition. Crops looking well. Cattle in excellent condition. Rainfall: 2·49 inches on ten days.—E. Smith.

BASUTOLAND.

Mafeteng.—Very heavy rains during the month, totalling 6·03 inches on sixteen days. Country thoroughly soaked. Dams overflowing and lands flooded.—F. Hodgson.

JUNE WEATHER CHARACTERISTICS.

June is a dry, sunny month, and over no part of the Union, except the western, southern, and south-eastern coasts, and in the extreme south-west of the Cape Province, does the rainfall exceed 1 inch. On the high veld and Karroo it is not infrequently quite rainless.

The rainfall in the Cape Peninsula is, however, still increasing, approximating 6 inches, whilst over the adjoining south-western districts the monthly maximum of 3·5 inches is reached. Along the west coast there is a slight decrease, but both there and along the south coast the variation from the May rainfall is inconsiderable. Thunderstorms are now at their minimum.

The mean air temperature continues to decrease rapidly, the days, except on the northern Karroo and in the Transvaal, being the coldest of the year. The Transvaal low veld is now the warmest part of the Union, with a mean temperature of about 59·5 degrees, and Basutoland the coldest, with 45·5 degrees. Between these are Natal and the south coast, with a normal of 57 degrees; the Cape Peninsula, with 56 degrees; the south-eastern districts of the Cape, with 55 degrees; the west coast, with 54 degrees; Kaffraria, with 53 degrees; the north-eastern districts and the east-central Karroo, with 53·5 degrees; the southern Karroo, with 51·5 degrees; the northern borders, with 51 degrees; the west-central Karroo, with 50 degrees; the Transvaal high veld, with 49·4 degrees; and the Orange Free State, northern Karroo, and Cape north-eastern districts, with 46 degrees. Sharp night frosts are a characteristic of the high veld during this month, and killing frosts may be experienced.

The prevailing winds over the Cape Province are from north-west and south, both directions, however, showing a decrease in frequency compared with the preceding month. Over the northern borders of the Cape the prevalent direction has changed to south south-east from south during May, thus causing a considerable increase in the number of south-south-east winds and a corresponding diminution in those from south. Over this area, moreover, there is a lower percentage of winds from those points of the compass from west-north-west round by north to east-north-east, as well as south and south-west, but an increased percentage of winds from all other directions. Notwithstanding a considerable diminution in the frequency of north-westerly (west-north-west—north-north-west) winds and a slight increase in all other directions (except south-west and south-south-west) the prevailing wind over the high veld continues to blow from a north-north-westerly direction. Over the Cape south-eastern districts the prevalent direction is west-north-west, as a consequence of a falling-off in frequency of north-easterly and south-westerly winds, together with an actual increase of those from north-westerly directions.

C. STEWART,
Chief Meteorologist.

Pretoria.

AIR TEMPERATURES (SELF-REGISTERING THERMOMETERS IN THERMOMETER-SCREENS), APRIL, 1925.

Station	Observer.	Mean Maximum.	Mean Minimum.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Transvaal—										
Barberton	Walter Grubb	77·8	58·5	68·2	67·0	+ 1·2	90·0	9th	53·0	8th.
Belfast	The Forester	66·7	44·7	55·7	55·8	− 0·1	77·0	22nd	36·0	20th.
Bloemhof	Sergt. P. J. Jordaan	74·6	53·3	64·0	62·0	+ 2·0	82·0	—	49·4	17th.
Ermelo	J. Dean	67·5	49·3	58·4	57·3	+ 1·1	75·9	19th	45·0	20th.
Johannesburg (Observatory)	The Staff	65·8	51·2	58·5	58·8	− 0·3	74·8	21st	46·1	25th.
Klerksdorp (Strathmore)	C. Scott	74·5	53·0	63·8	63·1	+ 0·7	82·0	22nd	46·0	4th.
Komatipoort	A. H. White	84·0	64·5	74·2	73·0	+ 1·2	94·0	9th	59·0	8th.
Louis Trichardt	—	—	—	—	64·2	—	—	—	—	—
Middelburg (School)	The Principal	72·0	50·4	61·2	60·2	+ 1·0	79·0	21st	44·4	24th.
Nylstroom	G. Bakker	75·3	55·0	65·2	64·4	+ 0·8	83·0	17th	49·5	24th.
Pietersburg	W. J. Frankleyne	75·7	53·9	64·8	63·4	+ 1·4	84·0	13th	47·0	8th.
Piet Retief	J. Werner	72·3	52·1	62·2	60·8	+ 1·4	82·0	18th	49·5	7th.
Pigeonhole (New Agatha)	J. McCallum	67·9	56·1	62·0	—	—	76·0	13th	50·0	2nd.
Pilgrims Rest	E. M. Skea	71·1	52·8	62·0	61·6	+ 0·4	83·5	9th	45·5	8th.
Potchefstroom (Exp. Farm)	The Manager	72·3	52·2	62·2	60·5	+ 1·7	79·4	17th	45·0	4th.
Pretoria (Meteorological Office)	The Staff	73·2	53·9	63·6	62·9	+ 0·7	81·3	21st	49·5	24th.
Rustenburg	H. J. Streatfield	73·8	52·8	63·3	65·2	− 1·9	82·0	25th	48·0	4th and 5th.
Standerton	The Magistrate	70·9	50·0	60·4	58·0	+ 2·4	79·9	19th	44·7	24th.
Zeerust	H. Dietrich	74·2	54·6	64·4	63·7	+ 0·7	82·0	16th and 17th	47·9	4th.
Swaziland—										
Mbabane	Swaziland Police	71·6	54·3	63·0	62·6	+ 0·4	84·0	9th	49·0	11th.
Orange Free State—										
Bethulie	J. J. Wardhaugh	72·7	47·5	60·1	60·0	+ 0·1	78·8	19th	36·6	26th.
Bloemfontein	G. A. Schepers	71·3	51·0	61·2	59·9	+ 1·3	78·0	19th	44·5	14th.
Harrismith	The Forester	64·1	46·8	55·4	56·0	− 0·6	72·5	19th	42·0	6th, 7th, 17th, and 26th.
Kroonstad	A. C. Mason	72·8	51·7	62·2	58·9	+ 3·3	80·6	17th	45·0	29th.
Ladybrand	The Forester	67·0	49·0	58·0	59·2	− 1·2	75·0	21st	44·0	14th.
Lindley	J. Murphy	69·9	49·3	59·6	58·8	+ 0·8	77·0	19th and 20th	43·0	29th.
Natal—										
Dundee	West Thorrold	73·8	52·1	63·0	64·6	− 1·6	84·0	19th and 20th	45·0	29th.
Durban (Point)	The Port Captain	77·5	65·9	71·7	72·4	− 0·7	83·2	21st	59·8	26th.
Empangeni	The Forester	78·1	62·9	70·5	71·0	− 0·5	91·0	24th	57·0	26th.
Estcourt	The Town Clerk	—	—	—	64·2	—	—	—	—	—
Hlabisa	E. E. Redgrove	76·2	60·0	68·1	69·6	− 1·5	89·0	24th	54·0	11th and 26th.
Ladysmith	D. A. R. Leathern	75·2	55·3	65·2	67·4	− 2·2	86·0	20th	49·0	29th.
Maritzburg (Mental Hospital)	The Staff	73·4	56·5	65·0	67·8	− 2·8	86·2	19th	49·8	6th.
Stanger	C. C. Foss	—	—	—	71·5	—	—	—	—	—
Weenen	The Gaoler	75·2	54·9	65·0	67·6	− 2·6	88·0	19th	54·0	26th.

AIR TEMPERATURES, APRIL, 1925—(*continued*).

Station.	Observer.	Mean Maximum.	Mean Minimum.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
Cape Province—		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Aliwal North	Alex. Alcock	71·5	47·8	59·6	59·0	+ 0·6	78·5	21st	40·0	14th.
Bedford	T. C. Hall	71·6	50·7	61·2	63·2	− 2·0	84·0	7th and 19th	40·0	26th.
Capetown (Royal Observatory)	The Staff	75·2	55·3	65·2	63·0	+ 2·2	101·1	1st	45·8	21st.
Carnarvon	A. P. Malherbe	74·0	48·5	61·2	60·2	+ 1·0	83·0	1st, 2nd, and 3rd	40·0	28th.
Clanwilliam	C. B. van Zijl	83·9	52·2	68·0	67·2	+ 0·8	102·0	1st	43·0	22nd.
East London	The Port Captain	72·5	59·4	66·0	66·2	− 0·2	87·0	7th	50·0	14th.
Graaff-Reinet (Convent)	The Mother Superior	76·7	52·1	64·4	64·1	+ 0·3	89·6	3rd	38·8	26th.
Grahamstown	The Vet. Res. Officer	—	—	—	63·9	—	—	—	—	—
Groot Drakenstein	A. Franceys	77·0	53·0	65·0	64·0	+ 1·0	101·0	1st	43·0	17th.
Kenhardt	R. Seydell	82·1	56·0	69·0	66·2	+ 2·8	88·0	4th 11th, and 13th	46·0	30th.
Kimberley	C. H. Dowler	76·4	53·9	65·2	63·6	+ 1·6	83·0	18th	47·0	26th.
Kingwilliamstown	W. A. Kindness	74·1	53·7	63·9	66·4	− 2·5	92·0	19th	42·0	17th.
Kokstad	H. D. Coyte	68·4	47·2	57·8	59·4	− 1·6	79·0	20th	40·0	7th.
Mafeking (Convent)	The Mother Superior	72·9	54·7	63·8	63·5	+ 0·3	80·0	17th	47·1	4th.
Mossel Bay (Cape St. Blaize)	The Lightkeeper	68·9	57·0	63·0	64·4	− 1·4	89·0	7th	50·0	17th.
Murraysburg	—	—	—	—	60·2	—	—	—	—	—
O'okiep	H. T. Wyles	78·5	56·4	67·4	65·8	+ 1·6	88·6	1st	43·2	24th.
Port Elizabeth	The Lightkeeper	71·8	57·3	64·6	65·5	− 0·9	96·0	7th	51·0	14th.
Port Nolloth	The Lightkeeper	—	—	—	58·8	—	—	—	—	—
Port St. Johns (Cape Hermes)	The Lightkeeper	74·1	63·0	68·6	68·4	+ 0·2	82·0	8th	58·0	26th.
Queenstown	H. Holley	72·5	49·7	61·1	61·9	− 0·8	82·0	19th and 20th	40·0	26th.
Somerset East	C. Harris	71·8	51·0	61·4	63·6	− 2·2	86·0	7th	42·0	26th.
Stutterheim	F. C. Bousfield	73·5	52·9	63·2	62·4	+ 0·8	88·3	8th	45·1	14th.
Sydney's Hope	Rev. S. Rippon	71·1	53·8	62·4	65·2	− 2·8	86·5	19th	46·0	14th and 26th.
Uitenhage	H. Inggs	77·8	52·6	65·2	67·2	− 2·0	97·0	7th	40·0	14th.
Umtata	P. Hackitt	74·4	54·1	64·2	64·5	− 0·3	89·1	19th	47·3	26th.
Vryburg	Sergt. H. White	75·8	52·4	64·1	63·1	+ 1·0	87·0	1st	47·0	17th.
Wynberg (Convent)	The Mother Superior	74·4	54·9	64·6	62·8	+ 1·8	96·8	1st	47·5	18th.
Basutoland—										
Mafeteng	F. Hodgson	65·6	48·3	57·0	59·6	− 2·6	73·0	18th	40·0	14th.

RAINFALL, APRIL, 1925.

Station.	Observer.	April, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
Transvaal —		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Barberton	W. Grubb	1·69	1·89	− 0·20	22·91	16·62	+ 6·29	41·10	30·64	+10·46
Belfast	The Forester	4·54	1·65	+ 2·89	19·97	15·75	+ 4·22	36·53	31·68	+ 4·85
Bethal	H. F. Joubert	3·36	1·21	+ 2·15	13·34	13·33	+ 0·01	30·39	28·94	+ 1·45
Bloemhof	— Jordaan	3·39	1·10	+ 2·29	16·55	11·15	+ 5·40	27·90	17·69	+10·21
Claremont	S.A. Police	0·06	1·07	− 1·01	9·66	10·34	− 0·68	19·19	18·27	+ 0·92
Ermelo	The Forester	2·96	1·20	+ 1·76	12·59	13·67	− 1·08	29·13	30·79	− 1·66
Haenertsburg	S.A. Police	3·47	1·44	+ 2·03	41·19	22·46	+18·73	60·11	36·45	+23·66
Heidelberg	W. ter Horst	3·83	1·21	+ 2·62	—	—	—	—	—	—
Johannesburg (Observatory)	The Staff	4·20	1·27	+ 2·93	19·85	15·57	+ 4·28	33·51	29·95	+ 3·56
Klerksdorp (Strathmore)	C. Scott	4·08	1·72	+ 2·36	16·13	12·76	+ 3·37	28·61	22·56	+ 6·05
Komatipoort	A. H. White	3·19	1·67	+ 1·52	29·19	16·74	+12·45	47·69	26·65	+21·04
Louis Trichardt	C. L. Cope	3·55	1·54	+ 2·01	35·67	16·92	+18·75	51·54	28·83	+22·71
Middelburg	—	3·47	1·33	+ 2·14	—	—	—	—	—	—
Nylstroom	G. Bakker	5·81	1·15	+ 4·66	20·64	13·53	+ 7·11	32·14	24·29	+ 7·85
Pietersburg	W. Frankleyne	0·95	1·04	− 0·09	14·03	11·08	+ 2·95	24·92	20·98	+ 3·94
Piet Retief	J. Werner	2·65	2·04	+ 0·61	23·54	17·43	+ 6·11	48·93	35·47	+13·46
Pigeonhole (New Agatha)	J. McCallum	5·25	2·31	+ 2·94	53·81	27·22	+26·59	79·35	46·03	+33·32
Pilgrims Rest	E. M. Skea	1·75	2·24	− 0·49	42·84	24·26	+18·58	60·43	38·60	+21·83
Potchefstroom (Exp. Farm)	The Manager	3·35	1·48	+ 1·87	18·43	11·86	+ 6·57	32·38	22·88	+ 9·50
Pretoria (Meteorological Office)	The Staff	4·67	1·26	+ 3·41	20·39	15·35	+ 5·04	35·43	28·82	+ 6·61
Rooiberg	N. H. Monro	2·70	0·87	+ 1·83	16·39	13·48	+ 2·91	27·28	24·14	+ 3·14
Rustenburg	H. J. Streatfield	3·87	0·88	+ 2·99	19·16	13·84	+ 5·32	32·70	25·79	+ 6·91
Standerton	The Magistrate	2·82	1·33	+ 1·49	—	—	—	—	—	—
Wakkerstroom	J. C. Aspden	1·77	1·37	+ 0·40	20·39	15·93	+ 4·46	36·73	31·33	+ 5·40
Woodbush I.	The Forester	4·82	3·14	+ 1·68	67·09	42·91	+24·18	100·41	68·99	+31·42
Zeerust	H Dietrich	3·94	1·33	+ 2·61	17·94	13·36	+ 4·58	32·69	23·09	+ 9·60
Joubert Park (Johannesburg)	The Supt. of Parks	4·12	1·84	+ 2·28	22·98	17·61	+ 5·37	39·39	32·23	+ 7·16
Swaziland—										
Mbabane	Swaziland Police	4·94	2·65	+ 2·29	58·81	27·88	+30·93	98·58	51·39	+47·19
Orange Free State—										
Bethulie	J. J. Wardhaugh	5·27	1·34	+ 3·93	19·29	10·11	+ 9·18	26·82	16·30	+10·52
Bloemfontein	G. A. Schepers	3·24	1·82	+ 1·42	13·96	12·46	+ 1·50	24·04	20·25	+ 3·79
Boshof	E. W. Milton	3·06	1·47	+ 1·59	12·14	11·12	+ 1·02	21·95	18·48	+ 3·47
Harrismith	The Forester	2·35	1·48	+ 0·87	21·39	14·58	+ 6·81	38·71	28·56	+10·15
Kroonstad	A. C. Mason	3·51	1·78	+ 1·73	13·86	13·08	+ 0·78	31·17	23·02	+ 8·15
Ladybrand	The Forester	4·79	1·83	+ 2·96	21·69	14·01	+ 7·68	42·09	26·00	+16·09
Lindley	The Gaoler	3·22	1·65	+ 1·57	18·83	12·35	+ 6·48	—	23·01	—

RAINFALL, APRIL, 1925—(*continued*).

Station.	Observer.	April, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
Natal—		Inches.	Inches.	Inches.	Inches.	Inches.	Inches	Inches	Inches.	Inches.
Dundee	W. Thorrold	2·80	2·06	+ 0·74	25·22	16·70	+ 8·52	44·42	31·13	+13·29
Durban	The Port Captain	2·05	3·58	− 1·53	28·69	17·75	+10·94	48·38	38·47	+ 9·91
Empangeni	The Forester	3·19	3·79	− 0·60	50·53	20·03	+30·50	77·03	41·87	+35·16
Estcourt	The Town Clerk	5·17	1·48	+ 3·69	30·47	15·82	+14·65	51·94	28·16	+23·78
Hlabisa	E. E. Redgrove	3·90	3·01	+ 0·89	63·78	20·59	+43·19	88·72	41·51	+47·21
Howick	The Gaoler	4·29	2·13	+ 2·16	30·93	17·12	+13·81	47·55	32·15	+15·40
Ladysmith	D. A. R. Leathern	3·64	1·45	+ 2·19	32·69	15·42	+17·27	52·99	27·67	+25·32
Maritzburg (Mental Hospital)	The Staff	2·52	2·10	+ 0·42	32·74	18·57	+14·17	53·34	35·83	+17·51
Stanger	C. C. Foss	—	2·75	—	—	17·24	—	—	39·74	—
Vryheid	The Gaoler	1·21	2·13	− 0·92	26·61	17·38	+ 9·23	48·65	34·15	+14·50
Weenen	The Gaoler	3·67	1·67	+ 2·00	18·63	14·49	+ 4·14	37·12	26·59	+10·53
Cape Province—										
Aliwal North	A. Alcock	6·65	1·61	+ 5·04	23·46	11·04	+12·42	31·07	18·80	+12·27
Beaufort West	The Gaoler	1·04	0·87	+ 0·17	5·18	5·01	+ 0·17	7·30	8·51	− 1·21
Bedford	T. C. Hall	3·80	2·35	+ 1·45	12·68	13·04	− 0·36	20·69	24·05	− 3·36
Britstown	The Gaoler	5·16	1·62	+ 3·54	14·16	7·08	+ 7·08	17·74	10·32	+ 7·42
Calvinia	The Gaoler	0·17	0·97	− 0·80	2·87	2·56	+ 0·31	6·01	6·05	− 0·04
Capetown (Royal Observatory)	The Staff	0·48	1·94	− 1·46	1·29	4·13	− 2·84	11·53	17·05	− 5·52
Ceres	The Gaoler	0·16	2·95	− 2·79	1·05	5·58	− 4·53	19·91	28·37	− 8·46
Carnarvon	A. P. Malherbe	2·84	0·88	+ 1·96	9·46	4·70	+ 4·76	—	6·94	—
Clanwilliam	The Gaoler	0·02	0·72	− 0·70	1·24	1·43	− 0·19	4·58	5·76	− 1·18
Concordia	F. R. Carstens	0·08	0·63	− 0·55	2·38	1·79	+ 0·59	4·56	4·49	+ 0·07
Driefontein (French Hoek)	The Forester	2·43	4·23	− 1·80	4·80	9·22	− 4·42	43·59	47·70	− 4·11
East London	A. Downie	3·49	2·67	+ 0·82	19·37	12·75	+ 6·62	30·35	29·00	+ 1·35
Fraserburg	The Gaoler	0·63	0·88	− 0·25	4·14	3·73	+ 0·41	5·54	5·73	− 0·19
Grahamstown	The Vet. Res. Officer	3·07	2·29	+ 0·78	9·92	10·79	− 0·87	17·80	24·59	− 6·79
Garies	The Gaoler	0·00	0·50	− 0·50	1·00	0·91	+ 0·09	3·76	3·42	+ 0·34
Graaff-Reinet (Convent)	The Mother Superior	1·29	1·11	+ 0·18	7·92	6·48	+ 1·44	11·72	12·15	− 0·43
Groot Drakenstein	A. L. Franceys	0·53	2·80	2·27	1·64	5·70	− 4·06	20·22	24·28	− 4·06
Griquatown	The Gaoler	4·35	1·53	+ 2·82	12·71	8·08	+ 4·63	20·42	11·77	+ 8·65
George	Rev. Canon B. Price	3·20	2·66	+ 0·54	11·32	12·87	− 1·55	29·83	29·33	+ 0·50
Hanover	The Gaoler	2·86	1·43	+ 1·43	10·62	7·72	+ 2·90	13·98	11·79	+ 2·19
Hopetown	The Gaoler	—	1·09	—	—	7·58	—	—	11·34	—
Kenhardt	R. Seydell	1·44	0·63	+ 0·81	4·14	3·61	+ 0·53	6·75	5·14	+ 1·61
Kimberley	C. H. Dowler	3·02	1·41	+ 1·61	13·93	9·39	+ 4·54	23·15	15·12	+ 8·03
Knysna	The Gaoler	1·60	2·22	− 0·62	6·30	8·98	− 2·68	20·80	23·89	− 3·09
Kokstad	H. D. Coyte	2·59	1·61	+ 0·98	21·29	13·90	+ 7·39	40·23	25·55	+14·68
Kingwilliamstown	W. Kindness	2·41	2·16	+ 0·25	15·59	11·09	+ 4·50	24·31	22·75	+ 1·56
Kuruman	—	5·67	1·31	+ 4·36	17·12	11·21	+ 5·91	—	16·14	—
Mafeking (Convent)	The Mother Superior	3·03	1·72	+ 1·31	16·19	12·92	+ 3·27	27·98	22·18	+ 5·80

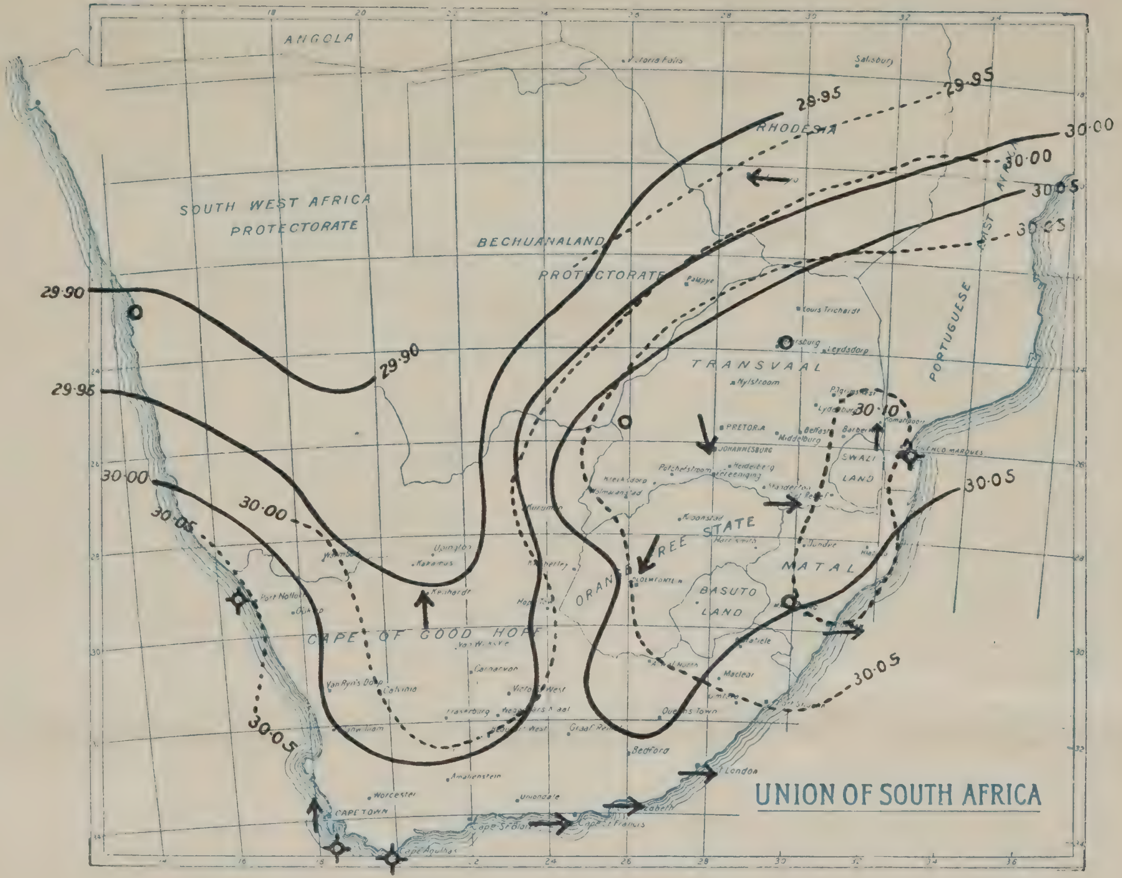
RAINFALL, APRIL, 1925—(*continued*).

Station.	Observer.	April, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
Cape Province (continued)—		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Mossel Bay (Cape St. Blaize)	The Lightkeeper	1·28	1·74	− 0·46	3·85	5·85	− 2·00	10·00	14·34	− 4·34
Murraysburg	W. Rose-Innes	—	1·06	—	—	5·87	—	—	9·44	—
O'okiep	J. Burrows	0·05	0·67	− 0·62	1·95	1·60	+ 0·35	3·13	4·90	− 1·77
Philipstown	The Gaoler	5·72	1·26	+ 4·46	16·88	7·88	+ 9·00	21·66	12·04	+ 9·62
Piquetberg	The Gaoler	0·07	1·60	− 1·53	1·08	3·19	− 2·11	11·88	14·62	− 2·74
Port Elizabeth	The Lightkeeper	1·02	1·92	− 0·90	3·96	6·21	− 2·25	12·98	18·33	− 5·35
Port St. Johns	The Lightkeeper	3·80	3·87	− 0·07	26·37	20·19	+ 6·18	46·81	45·16	+ 1·65
Port Nolloth	The Lightkeeper	0·02	0·24	− 0·22	0·50	0·52	− 0·02	1·41	1·60	− 0·19
Prieska	The Gaoler	2·50	1·36	+ 1·14	12·03	6·36	+ 5·67	15·57	8·78	+ 6·79
Queenstown	H. Holley	3·47	1·64	+ 1·83	16·23	12·49	+ 3·74	24·62	21·33	+ 3·29
Steytlerville	The Gaoler	1·05	0·89	+ 0·16	3·32	4·58	− 1·26	5·70	8·30	− 2·60
Sutherland	The Gaoler	0·75	0·98	− 0·23	5·43	3·09	+ 2·34	—	7·06	—
Swellendam	The Gaoler	3·24	2·79	+ 0·45	12·63	11·02	1·61	26·98	26·62	+ 0·36
Sydney's Hope	Rev. S. Rippon	3·03	2·16	+ 0·87	8·29	8·56	0·27	18·68	19·48	− 0·80
Somerset East	C. Harris	3·67	2·12	+ 1·55	10·44	11·81	1·37	17·77	23·02	− 5·25
Stutterheim	F. C. Bousfield	4·73	2·30	+ 2·43	19·98	14·62	+ 5·36	29·77	27·83	+ 1·94
Uitenhage	H. Inggs	1·96	1·65	+ 0·31	5·71	6·44	− 0·73	12·66	14·88	− 2·22
Umtata	P. Hackitt	3·89	1·81	+ 2·08	17·78	12·32	+ 5·46	28·29	23·30	+ 4·99
Uniondale	The Gaoler	0·46	1·22	− 0·76	2·44	4·32	− 1·88	8·69	10·70	− 2·01
Upington	The Gaoler	2·72	0·85	1·87	10·16	4·64	+ 5·52	12·29	6·61	+ 5·68
Victoria West	The Gaoler	0·91	0·98	− 0·07	6·50	6·03	+ 0·47	10·33	9·21	+ 1·12
Vryburg	Sergt. H. White	4·02	1·37	+ 2·65	17·16	12·43	+ 4·73	25·69	18·33	+ 7·36
Worcester	The Gaoler	0·93	1·09	− 0·16	0·98	2·23	− 1·25	4·84	8·89	− 4·05
Wynberg (Convent)	The Mother Superior	0·95	2·90	− 1·95	2·44	6·02	− 3·58	23·53	31·86	− 8·33
Basutoland—										
Mafeteng	F. Hodgson	6·03	2·75	+ 3·28	26·71	17·10	+ 9·61	41·26	29·43	+11·83
South-West Africa—										
Aroab	S.W.A. Police	2·47	0·48	+ 1·99	9·63	5·69	+ 3·94	10·29	7·23	+ 3·06
Aus	E. Martins	1·14	0·52	+ 0·62	4·27	1·98	+ 2·26	5·11	3·28	+ 1·83
Bethanie	Rev. Peter	0·22	0·06	+ 0·16	8·19	2·34	+ 5·85	9·71	3·11	+ 6·60
Duestenbrock	R. Matthiessen	4·54	1·10	+ 3·44	14·99	10·64	+ 4·35	16·78	12·88	+ 3·90
Gabis	Rev. P. Rehor	1·21	0·72	+ 0·49	8·24	2·24	+ 6·00	8·83	3·56	+ 5·22
Garinais	F. Bentling	1·06	0·71	+ 0·35	9·13	4·13	+ 5·00	10·33	5·72	+ 4·61
Gibeon	The Postmaster	0·29	0·48	− 0·19	10·28	4·86	+ 5·42	10·87	6·04	+ 4·83
Gobabis	Rev. Irle	4·39	1·05	+ 3·34	15·81	11·64	+ 4·17	19·02	15·44	+ 3·58
Grootfontein	Pitkowski	7·60	1·54	+ 6·06	16·65	16·89	− 0·24	34·29	23·46	+10·83
Gr. Witvley	G. Maas	2·32	1·08	+ 1·24	17·07	10·54	+ 6·53	20·87	14·20	+ 6·27
Haribes	**G. Freund**	1·33	0·61	+ 0·72	8·07	6·09	+ 1·98	8·75	7·71	+ 1·04

RAINFALL, APRIL, 1925—(*continued*).

Station.	Observer.	April, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
South-West Africa (contd.)—										
Hierachabis	Rev. P. Stroka	0·21	0·45	− 0·24	2·79	2·65	− 0·14	3·10	3·56	− 0·46
Kalkfontein S.	S.W.A. Police	0·41	0·41	± 0·00	8·01	2·83	+ 5·18	8·92	3·41	+ 5·51
Franzfontein	H. Ja[illegible]on	4·94	1·04	+ 3·90	14·91	7·65	+ 7·26	15·52	9·86	+ 5·66
Luderitz Bay	E. Stoeber	0·12	0·08	+ 0·04	0·34	0·11	+ 0·23	0·35	0·37	− 0·02
Maltahoehe	E. Just	0·54	0·78	− 0·24	8·38	5·23	+ 3·15	8·67	6·16	+ 2·51
Neu Heusis	Liebig's Extract Co.	5·83	0·67	+ 5·16	18·41	10·58	+ 7·83	19·08	13·24	+ 5·84
Okahandja	B. Templin	5·27	1·11	+ 4·16	20·82	10·66	+10·16	24·69	13·74	+10·95
Okasangumingo	R. H. A. Schneider	5·09	0·79	+ 4·30	18·89	11·87	+ 7·02	22·77	17·10	+ 5·67
Omaruru	The Postmaster	4·02	1·02	+ 3·00	17·58	12·73	+ 4·85	19·29	15·18	+ 4·11
Otjiwarongo	The Magistrate	1·88	1·40	+ 0·48	16·08	12·01	+ 4·07	16·30	15·93	+ 0·37
Outjo	The Magistrate	4·78	1·15	+ 3·63	20·01	11·58	+ 8·43	24·98	15·30	+ 9·68
Rehoboth	The Postmaster	1·76	1·11	+ 0·65	7·66	9·22	− 1·56	8·15	11·77	− 3·62
Rietfontein	B. Leist	7·25	1·22	+ 6·03	31·69	13·96	+17·73	36·22	19·79	+16·43
Swakopmund	The Gaoler	0·00	0·04	− 0·04	0·65	0·33	+ 0·32	0·75	0·62	+ 0·13
Tsumeb	Ing. Schatter	6·64	1·25	+ 5·39	27·02	16·44	+10·58	36·24	23·35	+12·89
Usakos	Rev. Diehl	3·87	0·54	+ 3·33	12·17	4·02	+ 8·15	13·06	5·00	+ 8·06
Voigtsgrund	A. Voigts	0·26	0·56	− 0·30	17·02	5·87	+11·15	19·56	7·09	+12·47
Warmbad	E. Luchtenstein	0·23	0·60	− 0·37	3·44	2·46	+ 0·98	4·18	3·16	+ 1·02
Waterburg	D. Hahn	7·67	1·56	+ 6·11	21·68	14·27	+ 7·41	26·38	19·30	+ 7·08
Wilhelmstal	W. Boehmker	4·46	0·73	+ 3·73	16·70	9·43	+ 7·47	18·42	12·05	+ 6·37
Windhoek	Observatory	6·93	1·46	+ 5·47	19·73	11·19	+ 8·54	22·35	14·42	+ 7·93

N°101.



April, 1925. Prevailing Winds and Mean Barometric Pressure at 8.30 a.m.
The dotted lines indicate the normal distribution for April.

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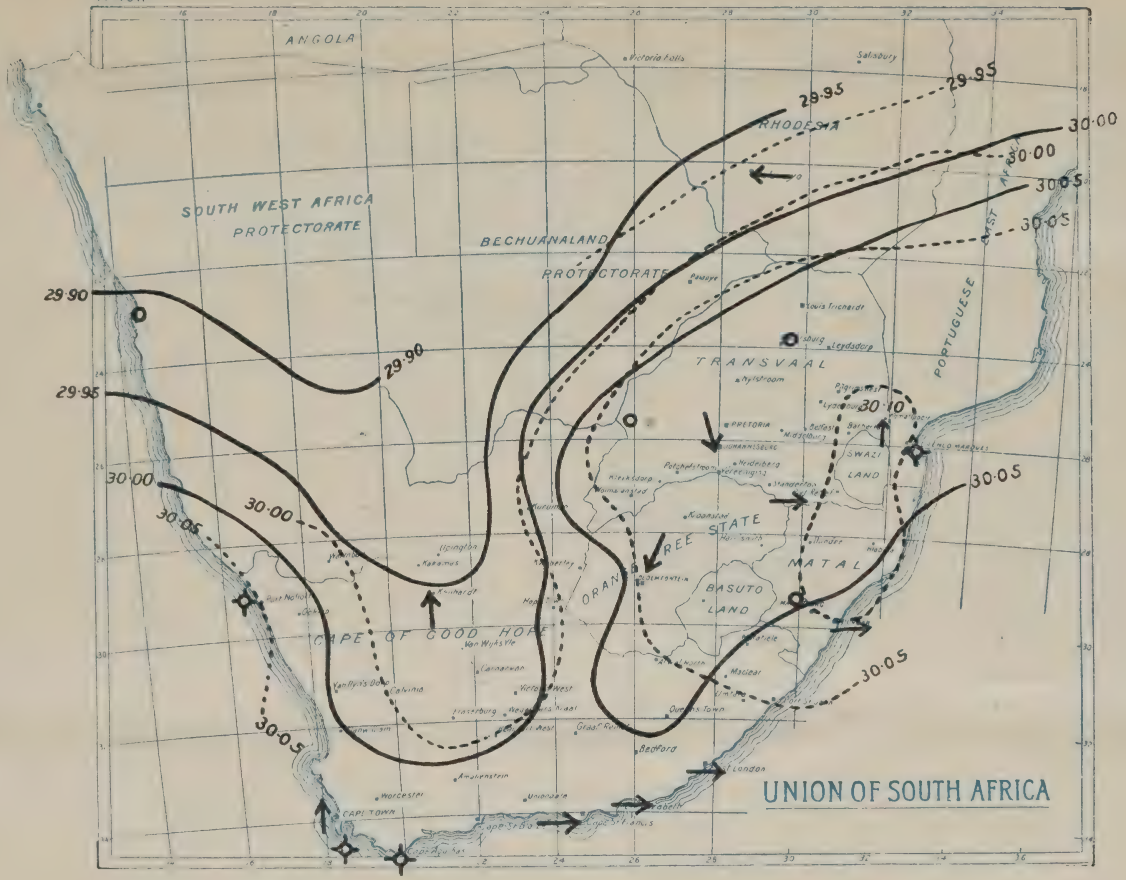
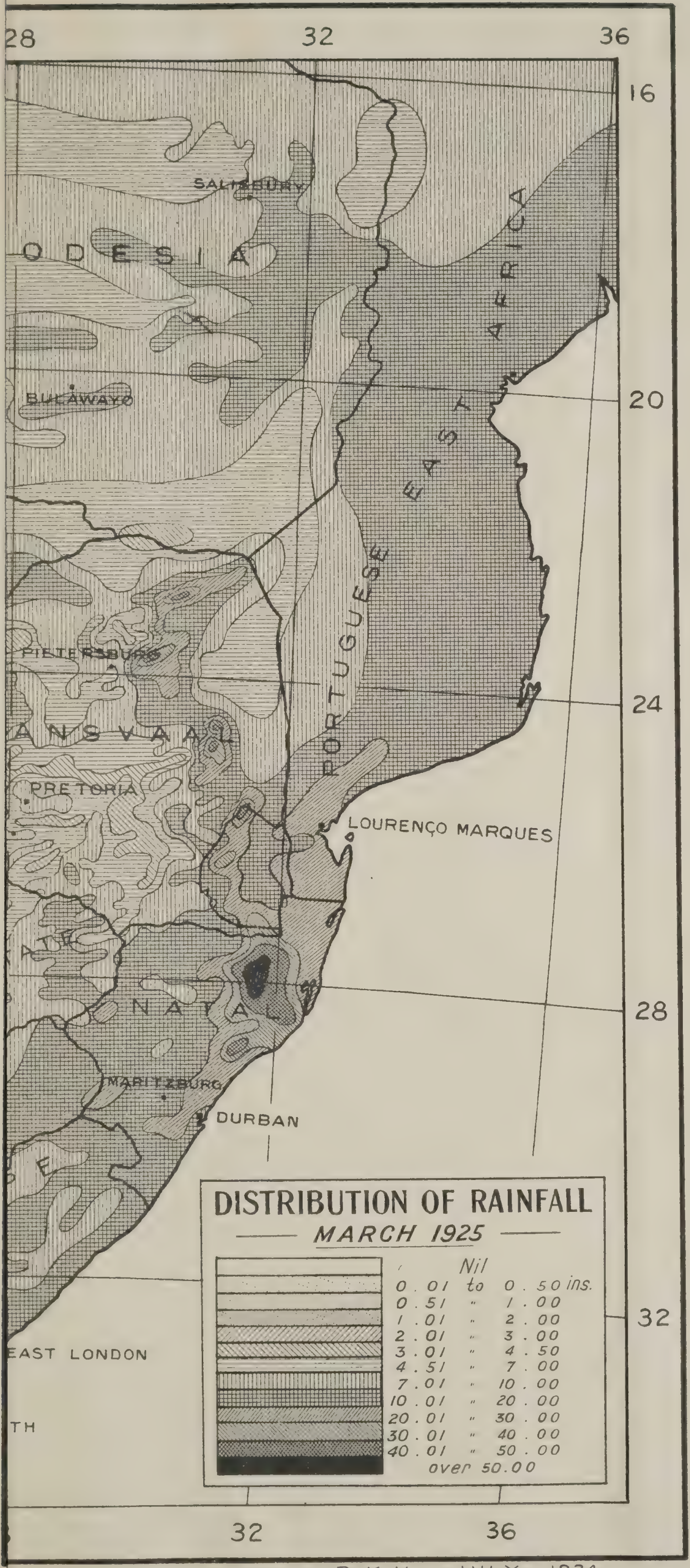


April, 1925. Prevailing Winds and Mean Barometric Pressure at 8.30 a.m.
The dotted lines indicate the normal distribution for April.



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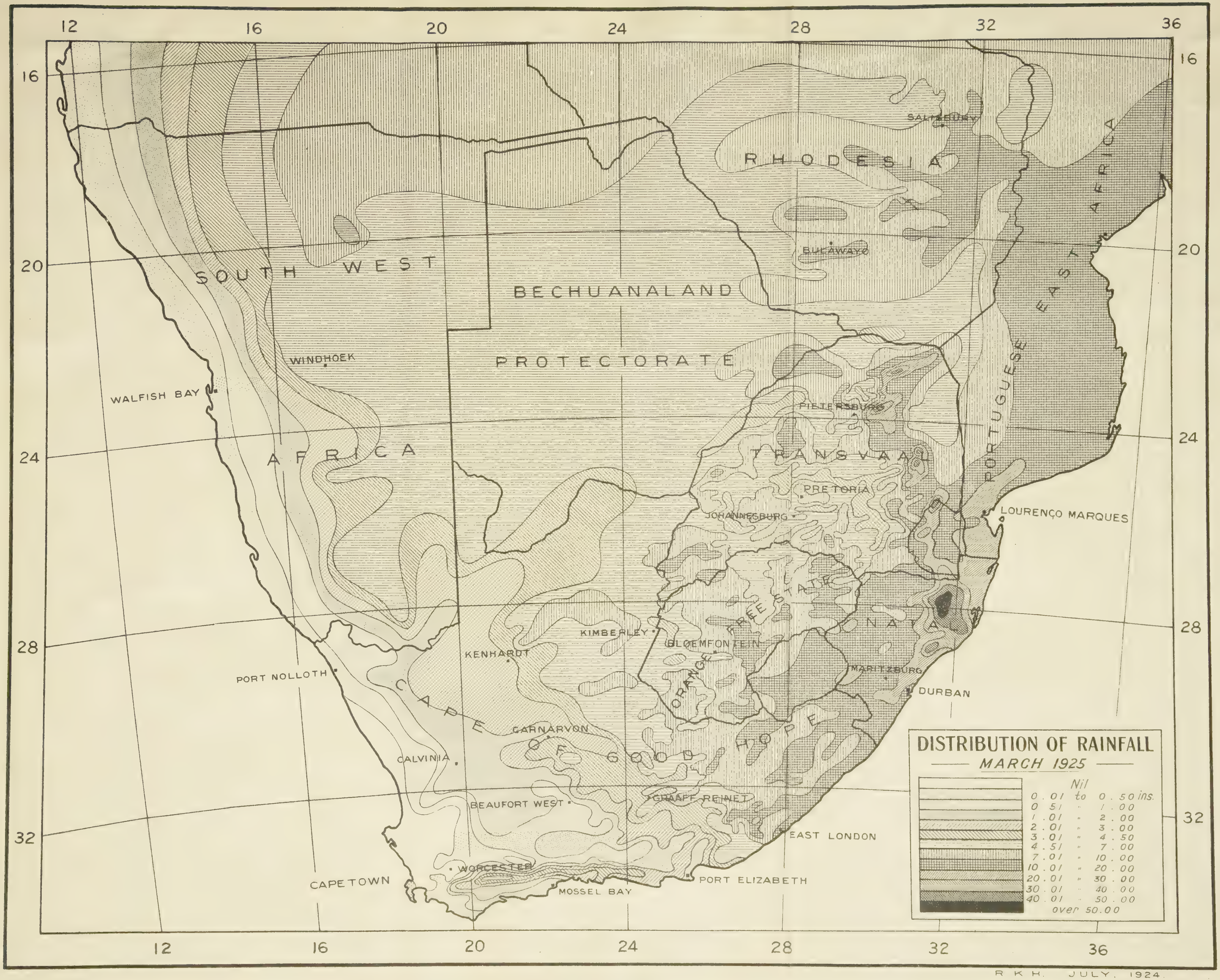
SOUTH AFRICA



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Mean barometric pressure lower than usual in the east and south, but practically normal in the west; mean temperature $1\frac{1}{2}$ degree lower than usual, with days considerably (3–4 degrees) cooler and nights slightly warmer than usual; frosts, mostly light, particularly in Natal, from the 8th onwards; an excess of rainfall over the Transvaal, Free State, parts of Natal, and the innermost plateau, as well as portions of the north-east and south-east of the Cape Province; an unusual prolongation of wet weather till the end of the first week, with a renewal at the end of the month, over the summer rainfall area, causing exceptionally late floods in a number of rivers and delaying the ripening and reaping of crops; abnormally dry to the south and west of the Great Escarpment; fogs succeeding the rains in areas usually free from this phenomenon: snow on the Basutoland mountains from the 27th; these were the outstanding features of the weather of May, 1925.

Pressure.—The mean pressure was practically normal during May over Rhodesia and on the west coast, but about half-a-tenth below the average in the eastern half of the Union and slightly less than usual along the south coast. On the 1st a "low" lay over the interior in South-West Africa and the west central portions of the Union, while an isobar of 30·05 in. extended along the south and east coasts, forming a loop over the north of the Free State and the south and east of the Transvaal; a few local showers had fallen in the north, east-centre, and south-west of the Transvaal, the north-west of the Free State, and the north-east of the Cape Province, also over the centre of the northern half of South-West Africa. On the 2nd the interior "low" had pushed further south, so that the trough was longer and narrower than on the preceding day; pressure had increased in the west and south-west, but had fallen a few hundredths of an inch in the south and east: rain had fallen over the greater part of the Transvaal, the north of the Free State, the north-west of Natal, Bechuanaland, and part of the northern border, also the north-west of South-West Africa. On the 3rd the "low" over the interior had intensified, pressure having decreased by one-tenth, while pressure had increased by a similar amount in the south-west, south, and east; precipitation along the south coast, in the east of Kaffraria, in Natal, the east and north of the Free State, Bechuanaland, and over the whole of the Transvaal, also in the north of South-West Africa. On the 4th the equatorial " low " had extended further south on to the south-west coast, while pressure had fallen a little in the south and south-east, but had increased in the east; rain had fallen over the Transvaal, Natal, the north and west of the Free State, Bechuanaland, the northern border, portions of the Karroo, and the greater part of the east of the Cape Province, including Kaffraria, also over portions of the south coast and the Namaqualand coast; no precipitation was reported from South-West Africa. On the 5th, pressure had risen slightly over the interior and in the west, but had fallen by one to two hundredths in the south and east; the tip of an inverted V-depression had made its appearance in the south-west; rain had fallen over practically the same portions of the country as on the preceding day, also in the east of South-West Africa. On the 6th, pressure had remained steady in the west, but had fallen slightly in the south-west, south, and east, while a fragment of a " low " lay on the coast of Portuguese East Africa; rain had fallen over nearly the same area as on the 5th; showers had occurred over the same area as yesterday, except the west and centre of the Free State and the north and centre of the inmost plateau and South-West Africa. On the 7th, pressure had fallen on the south and east coasts, and to the greatest extent on the south-east, where a coastal " low " had made its appearance, having the lowest isobar (29·70 in.) in the neighbourhood of Port St. Johns; the complementary " low " was centred over the northern interior, with a fairly active anticyclone in the west; rain had fallen during the preceding 24 hours over almost the whole Union, with the exception of Natal and Zululand and South-West Africa. On the 8th the front of the western " high " had advanced on to the land covering the whole Union, Southern Rhodesia, and South-West Africa, with moderate to strong breezes from between west and south; a fragment of the south-east " low " lay over the Mozambique Channel, while the rear isobar of an anticyclone lay over Madagascar; showers had fallen over the Cape Province, with the exception of the northern border and Bechuanaland, also over the south, centre, and west of the Free State, the east and south-east of the Transvaal, and at Durban, on the Natal coast; no precipitation was reported from the remaining portions of the Provinces. On the 9th, pressure had increased by about two-tenths in the east and south, but remained practically steady in the west; the country remained under anticyclonic influence, with isobars running east and west instead of north-west to south-east as on the previous day; no rain had fallen since the preceding observation. On the 10th, the barometer had fallen one-tenth, or slightly more, in the west and south, but remained steady in the east, so that the highest isobar was in the south-east and east; a few showers had fallen along the south-east coast. On the 11th pressure had fallen slightly, except on the west coast at Mozambique, where a small rise had taken place; the highest isobar lay over the land between Lourenco Marques and Port Alfred; some showers had fallen over the coastal area of Kaffraria and Natal and at Hlabisa in Zululand. On the 12th, except for a further fall of a few hundredths, the distribution of pressure was the same as on the preceding day; showers had occurred over the same area and inland at Pilgrims Rest in the Transvaal. On the 13th, the same conditions prevailed, with showers on the Natal coast, at Hlabisa, and inland at Ermelo (T.P.). On the 14th, as the result of a fall of half-a-tenth in the east and an increase of double this amount in the south, the highest isobar (30·25 in.) of the anticylone had moved from the east to a position on the south, as if the anticyclone as a whole had performed a retrograde motion from north-east to south-west; a few showers had fallen in the south of Natal, in Swaziland, and at one or two places in the east and west of the Transvaal. On the 15th, the barometer had fallen a tenth in the south-west, but remained steady over the south-east and east, so that the highest isobar lay over the south-east and east, a little south of its position on the 13th; local showers had fallen in the east of Kaffraria, the south of Natal, in Zululand, and the north and south east of the Transvaal; also at Cape Agulhas. On the 16th a considerable fall had taken place (between three and four hundredths) along the south coast, where an inverted V-depression had made its appearance; a fall of about half this amount in the east had caused a decrease in the eastern anticyclone, the highest isobar of which was now 30·10 in.; a little rain was reported from Hlabisa (Zululand). On the 17th, the south coast "low" had moved to the coast of Portuguese East Africa, while an anticyclone, having the highest isobar 30·20 inches, was pushing in from the westward; showers had fallen along the south and south-east coasts. On the 18th, the whole country was once more under the influence of an anticyclone, with an isobar of 30·30 inches over the south-east coast, the "low" having completely disappeared; rain had fallen over portions of the south-east and north-east. On the 19th, the position of the highest readings (30·35 inches) was now between Lourenco Marques and the north of Natal, a fall of about one-tenth having taken place in the west and south; showers had fallen in Zululand. On the 20th, except for a slight general fall of about a tenth of an inch, conditions were unchanged; no rain had occurred over the Union. On the 21st, the greatest change was a fall of between one and two tenths in the south-west, where an inverted V-depression had appeared in the neighbourhood of Cape Agulhas; a slight decrease had taken place in the intensity of the anticyclone, which, however, remained in the same position as on the preceding day; no rain for the previous 24 hours was reported. On the 22nd, a further fall in the south and east caused a diminution in the intensity of the eastern "high," and enabled the southern "low" to encroach further on to the land: there were also indications of a complementary "low" forming over south-west, with the forefront of a "high" on the Namaqualand coast; no rain reported. On the 23rd, the south coast "low" had moved to the neighbourhood of Durban, the eastern "low" had weakened; the interior "low" had developed somewhat more definitely, while the west coast "high" had moved well on to the land, covering half of the Cape Province; strong south-westerly winds were blowing on the south coast; rain had fallen over part of the west and south coastal areas, and the south-west. On the 24th, the eastern "low" had moved off, and the western anticyclone had advanced, affecting the whole Union and pursuing the interior "low" into a more northerly position; showers had fallen at a few stations in the Transkei, Natal, Zululand, and the south coast, also at Windhoek in South-West Africa. On the 25th, a slight rise had taken place generally, except along the coast, where a fall of one or two hundredths of an inch had occurred, pressure being highest in the interior of the Union; in the south-west light north-westerly breezes seemed to indicate an approaching "low" pressure area; rain had fallen in the interval at some stations in the centre of the northern half of South-West Africa. On the 26th, a further fall of a tenth in the west and south-west and the winds turning almost due north along the south coast, confirmed the impression of an approaching "low"; the barometer continued practically steady in the east, where the "high" persisted, but had fallen a little in the north-west and over South-West Africa; no rain reported. On the 27th, a well-developed inverted V-depression had made its appearance in the south of the Cape Province, having its lowest isobar of 29·70 inches situated over Cape Agulhas, with the rear of a high pressure in the east and the forefront of another "high" over the north-west of the Cape Province and the south-west of South-West Africa; the complementary "low" was situated over South-West Africa and Bechuanaland Protectorate; rain had fallen over Namaqualand, the west coast area, the south-west of the

Cape Province, the west of the Karroo, and at a few stations on the south coast; showers had also fallen over the northern half of South-West Africa. By the morning of the 28th only the rear of the southern depression lay over the east, while the interior "low" had intensified slightly; the eastern "high" had moved a short distance to the north-east, pressure having fallen there by about half-a-tenth of an inch; the western "high" had pushed further on to the land, affecting also the south-west and south of the Cape Province; rain had fallen in the west and south-west, the northern Karroo, northern border, parts of the north-east, south-east, and Kaffraria, Bechuanaland, the west of the Transvaal, also the west and south of the Free State and parts of the east of the northern half of South-West Africa. On the 29th, pressure had increased generally, so that the whole country was under high-pressure conditions, although there were indications of the pressure of a "low" over the interior; rain had fallen in the south-west along the south coast, the northern border, Bechuanaland, the western half of the Transvaal, the Free State, the south of Natal, and the Transkei. On the 30th, pressure had risen slightly on the west and east coasts, but had fallen over the western interior, the south-west, and, to a less extent, on the south coast, the interior "low" having developed and pushed southwards into the Cape Province, with high pressure to both east and west; rain had occurred over the south-west of the Transvaal, the west of the Free State, Bechuanaland, the northern border, northern and central Karroo, parts of the west and south-west, as well as the south of Natal, also the centre and west of South-West Africa. On the 31st, the rear of a vigorous "low" was lying over the south-east of the Union, the lowest reading of the barometer being 29·71 inches at East London, while pressure had decreased in the east and west; the interior "low" had retreated northwards; rain had fallen over practically the whole Union.

Temperature.—The mean temperature during May was 56·4 degrees, or 1·6 degree lower than usual. This deficit was due to the mean day temperature (68·0 degrees) being 3·6 degrees less than the average, whilst the mean night temperature of 44·7 degrees was 0·3 degree higher than the normal. A subnormal temperature for the month was common to all the Provinces. thus the Transvaal (with 55·5 degrees) was 1·6 degree, the Cape Province (with 56·4 degrees) was 1·5 degree, the Free State (with 50·3 degrees) was 1·4 degree, and Natal (with 60·5 degrees) was 2·5 degrees lower than the corresponding averages. These shortages were mainly due to the mean maxima being considerably less than usual, whilst the mean minima were slightly higher, except in the Cape Province, where there was a small shortage. Thus, over the Transvaal, the mean day temperature of 68·2 degrees was 3·7 degrees lower, while the mean night temperature of 42·7 degrees was 0·5 degree higher than the respective normals. In the Free State, the days (with a mean temperature of 62·5 degrees) were 3·3 degrees cooler, while the nights (with 38·2 degrees) were 0·7 degree warmer than usual. In Natal, the mean maximum of 70·2 degrees was 6·0 degrees lower, whereas the mean minimum of 50·8 degrees was 1·0 degree higher than usual. Considering the stations separately, it is found that the temperature during May was below normal, except in the south-west of the Cape Province, at one or two stations on the coast, in the Transvaal, and Bechuanaland. In the Transvaal and Swaziland the deficits were mostly between 2 and 4 degrees, but varying from 0·1 degree at Bloemhof to 3·8 degrees at Barberton and Rustenburg. A small excess of 0·2 degree, however, occurred at Standerton. In the Free State, the deficits in mean temperature were one degree or less in the east and north-east and 2 to 3 degrees in the centre and south; the shortages varied from 0·3 degree at Kroonstad to 3·1 degrees at Bethulie. In Natal, the means for this month were less than usual by amounts varying from 1·1 degree at Durban and Ladysmith to 4·3 degrees at Hlabisa. In the Cape Province, the deficits in the monthly means were mostly between 1 and 3 degrees, but ranged from 0·1 degree at Port Nolloth to 4·6 degrees at Grahamstown. The excesses in the mean temperatures lay between 2·0 degrees at Wynberg and 0·1 degree at Mossel Bay. Except over the south of the west coast, the south-west, and over the Cape Peninsula, the day temperatures were lower than usual; in the Transvaal, generally by 2 to 5 degrees, but ranging from 1·0 degree at Barberton to 6·0 degrees at Middelburg; in the Free State, by amounts lying between 2·1 degrees at Bloemfontein and 4·8 degrees at Ladybrand; in Natal, mostly by 4 to 7 degrees, but ranging from 3·7 degrees at Durban to 8·0 degrees at Weenen; in the Cape Province, mostly by about 4 degrees in the east, by 1 degree or less along the coast and in the centre, increasing to over three degrees in the north; these negative departures lay beween 0·3 degree at Port Nolloth and 8·5 degrees at Mafeking. Excesses in the day temperatures varied between 0·4 degree at Clanwilliam and 3·5 degrees at the Royal Observatory (Cape Town). In the case of the night temperatures, excesses and deficits, as compared with the normals, were about equally frequent in the Transvaal and Cape Provinces. Over the former, the plus amounts varied from 0·1 degree at Pilgrims Rest to 3·1 degree at Bloemhof; and the minus quantities from 0·2 degree at Ermelo to 4·3 degrees at Belfast. Over the Cape Province, the surplus amounts of the mean minima over their corresponding normals ranged from 0·2 degree at Port Nolloth to 4·5 degrees at Port St. Johns; and the deficits from 0·1 degree at Mafeking to 6·1 degrees at Grahamstown. In the Free State, the mean night temperatures were higher than the average in the east and north by amounts lying between 0·1 degree at Lindley and 3·8 degrees at Ladybrand, but were lower than usual in the centre and south by about 2 to 3 degrees. An excess in the mean minimum temperature occurred about twice as frequently as a deficit, the latter being confined to the north and south in the interior. The excesses ranged from 0·9 degree at Empangeni to 4·7 degrees at Weenen, and the deficits from 0·4 degree at Maritzburg to 2·9 degrees at Dundee. The mean warmest station was Durban with 66·7 degrees, and the coolest Belfast with 47·4 degrees for the month, a difference of 19·3 degrees. The mean maximum this month varied between 79·1 degrees at Komati Poort, in the Transvaal, and 58·3 degrees at Mafeteng, in Basutoland; while the mean minima varied from 59·8 degrees at Durban (Natal) and 32·6 degrees at Belfast. Extreme maximum temperatures for the month were most widely noted on the 1st, but over the east of the Cape Province on the 21st. The warmest days were those between the 1st and 3rd, 6th, 7th, 10th to 13th, 21st to 23rd, and 25th to 29th. The mean of the highest readings was 76·9 degrees, and of the lowest readings 35·5 degrees, giving a range of 41·4 degrees. In the Transvaal, the mean monthly range was 42·3 degrees, the mean value of the highest readings being 75·8 degrees and of the lowest 33·5 degrees. In the Cape Province, the range was 43·0 degrees, the mean of the extremes being 79·4 degrees and 36·4 degrees respectively. The mean monthly range over the Free State was 40·8 degrees, the mean of the extreme maxima being 40·8 degrees and of the extreme minima 29·4 degrees; while in Natal the means of the corresponding extremes were 77·4 degrees and 42·2 degrees, yielding a mean monthly range of 35·2 degrees. The extreme readings during May were 91·0 degrees on the 15th at Port Nolloth, and 23·0 degrees on the 20th at Belfast, giving an extreme monthly range of 68·0 degrees. *Ground frost* was unusually long delayed this season, and it was not until the 8th that any widespread occurrence of this phenomenon took place. Although frequent after that date, the frosts were unusually light, affecting only the least hardy plants. The first frost this month was reported from Kroonstad on the 7th.

Precipitation.—The rainfall during May was usually large, constituting records for this month at a number of stations. Precipitation was also unusually widespread for this season, only a few stations in the central Karroo and Swaziland reporting "nil", as a matter of fact, the distribution resembled that of a summer month rather than the beginning of winter. The greatest depth of rainfall (more than three inches) occurred over an almost semi-circular belt, extending from the north-western border of the Transvaal in a general south-south-west direction, through the east of Bechuanaland, and on the northern border to the south-west of the Orange Free State, whence it turns in an easterly direction and includes the south of the Free State, a small portion of the north-east of the Cape, to terminate about the middle of Basutoland. Although this belt of relatively heavy rainfall merely skirts the western boundary of the Transvaal and Orange Free State, it sends a narrow tongue eastwards from the neighbourhood of Mafeking to terminate some distance to the east of Pretoria. Included in this area are a number of isolated patches of between 4½ and 7 inches, and one or two exceeding 7 inches. Outside of this area there are only a few small patches with a rainfall exceeding three inches, e.g. in the north, north-east, and east of the Transvaal, a narrow strip in Natal extending northwards from Durban to the centre of Zululand; two in the south-east of the Cape, one on the south coast, in the south-west, and to the west of Calvinia. From this large central area of heavy precipitation the rainfall shaded off in all directions, fairly regularly to the west to between half an inch and one inch, but irregularly to eastwards and southwards to less than half an inch in the Karroo, but increasing mainly to over 2 inches along the south coast, decreasing to half an inch or less in the middle portions of Natal, thence increasing rapidly to over 10 inches on the coast north of Durban. In the Transvaal, the rainfall decreased from the southern wet area to both in a northerly direction to less than an inch over the central Transvaal and to between 1 and 2 inches in a southerly direction; from the north-west the amount of rain decreased from between 4½ and 7 inches to less than an inch in an area round about Pietersburg; it then increased slightly to 1–2 inches over the greater portion of the central Transvaal and fell off once more to less than half an inch along the eastern border. In South-West Africa, the rainfall varied from between 1 and 2 inches in the north-east corner to less than half an inch over the greater part of the territory; a small area of between half an inch and one inch occurred in the south-west, and a narrow strip with "nil" stretching from the middle of the southern border in a north-north-west direction for a considerable distance, practically to the 26th parallel. Heavy *thunder* was reported from Verona (Vryburg Division) on the 29th. An unusual feature was the occurrence of fogs after the rains at Sydney-on-Vaal. Misty mornings were frequent along the south coast, continuing at Riversdale some days to 10.30 a.m. *Snow* was reported on the Drakensberg from the 27th.

Compared with the normal, rainfall was in excess over a large continuous track of country in the north and centre of the Union. This area may be roughly indicated as bounded on the west by the 20th meridian, as far south as the 32nd parallel, then eastwards along that latitude to the neighbourhood of Queenstown; the boundary then bends in a general norht-easterly direction, through the west of Basutoland to the centre of the western border of Swaziland, and, after forming a loop in the north of that section of the country, terminates on the eastern border of the Transvaal near Komati Poort. A very large portion of this area had a rainfall over three times the usual amount; this wet area consisted of a fairly solid stretch of country limited roughly on the west by a line extending from the northern border on the 24th meridian in a general south-west direction through Bechuanaland, the northern border, and the northern Karroo to a point a little south of the intersection of the 21st meridian and the 31st degree of latitude, thence in an east-north-east direction to the south-west corner of the Free State; it then sends two tongues across the Free State, one in the south in an easterly direction to the Basutoland border and another from the north-west corner in a north-east direction to the southern border of the Transvaal; the line then continues north-east so as to include a considerable portion of the south-west and south of the Transvaal as far east as Pretoria; it then bends to the west, and, after sending a tongue to the north-west parallel with the boundary of the Transvaal, terminates on the western border of that Province south of the 24th degree of latitude. From this area the rainfall shades off through decreasing proportions to sub-normal amounts as low as 25 per cent. or less in some parts of the coast. In the north-west of Namaqualand, however, a small area occurs having between two and three times the usual quantity. In Natal and Zululand, the continuity of the coastal sub-normal area is broken by a patch of supra-normal rainfall extending from a point south of Durban to the Portuguese border in Amatongaland. Over a goodly proportion of this area along the coast, the rainfall during May was two to three times the usual amount, while the interior western portions of Natal and Zululand were sub-normal. In South-West Africa, it may be stated that the southern half was mainly sub-normal and the northern half an area of excess compared with the average. In the south, the continuity of the sub-normal area, however, was broken by areas of excess rainfall in the south-east, in the south-west round Aus, and in the neighbourhood of Gibeon; and in the northern half, the continuity of the plus area was broken by sub-normal patches in the east, centre, and north-west. The excess varied from 0·01 inch or 33 per cent. at Swakopmund to 0·85 inch or 243 per cent. at Wilhelmstal; and the deficits from 0·02 inch at Hierachabis and Groot Vlei, representing 6 and 4 per cent. of the respective normals, to 0·43 inch or 63 per cent. at Kalkfontein. The amount recorded at Rietfontein was normal.

The aggregate rainfall since the 1st July, 1924, was above the average practically everywhere to the north-east of a line drawn from O'okiep south-east to Bedford and on to the coast. These excesses were very great, frequently exceeding ten inches at stations in all the Provinces, and reaching 50·07 inches or 116 per cent. above normal at Hlabisa in Zululand. In the Transvaal, including Swaziland, the surplus amounts were greatest in the east and north-east, where they frequently exceeded 20 inches or over. Thus Mbabane showed an excess of 47·38 inches or 90 per cent., and Pigeonhole, in the Zoutpansberg, one of 34·19 inches or 72 per cent. over normal. In the west, south-west and south-east, the excesses were over 10 inches, but decreased to between 2 and 5 inches in parts of the north-west and south. A somewhat peculiar feature was the small excesses in the east of the high veld, being only 1·91 inch or 6 per cent. at Bethal, while a shortage of 1·52 inch or 5 per cent. was registered at Ermelo. In the Orange Free State, the plus amounts were greatest in the east, north-east, and south, where they were over 10 inches, decreasing to about 5 inches in the centre and west: thus an excess of 17·67 inches or 66 per cent. occurred at Ladybrand and of 4·98 inches or 23 per cent. at Bloemfontein. In Natal, the eleven months' total was everywhere above the average by amounts varying from 10·78 inches or 40 per cent. at Weenen, and 39·21 inches or 88 per cent. at Empangeni. In the Cape Province, the excesses were greatest in the east, along the borders of the adjoining Provinces, varying from 8·14 inches, and decreased generally to the west and south. The excesses ranged from 0·01 inch, or less than 1 per cent., at Sydney's Hope to 13·77 inches or 70 per cent. at Aliwal North. The deficits in the area to the south-west of the line between O'okiep and Bedford were large, 6 to 12 inches in the more easterly part of this area and in the south-west, but decreased to a fraction of an inch ver portions of the west, south, and the interior. The largest actual deficit was 12·42 inches or 36 per cent. at Ceres in the south-west, and the least 0·09 inch or 1 per cent. at Sutherland. Even this sub-normal area was not homogeneous, being broken up by patches of excess rainfall, as at Calvinia, Port Nolloth, etc. Similarly, in South-West Africa, the total rainfall for these eleven months was mostly considerably above normal, the exceptional areas consisting of the neighbourhood of Hierachabis, Kalkfontein in the south, Rehoboth in the centre, and Luderitz Bay on the south-west coast. The excesses were mostly between 5 and 10 inches or over in the northern half and 2 to 6 inches or less in the southern half. These surplus quantities varied from 0·14 inch or 21 per cent. at Swakopmund to 16·43 inches or 82 per cent. at Riettontein. Except at Rehoboth, where the shortage was 3·31 inches or 28 per cent. below normal, the deficits were less than one inch, being only 0·08 inch or 17 per cent. at Luderitz Bay.

The cumulative amounts of rainfall during the five months commencing 1st January of the current year were in excess of the normal over practically the same area as the totals for the eleven months, the excesses being generally less than during the latter period. In the Transvaal, the surplus quantities lay between 0·47 inch or 3 per cent. at Bethal and 27·46 inches or 96 per cent. at Pigeonhole (Zoutpansberg Division), while Mbabane in Swaziland showed an excess of 31·12 inches or 107 per cent. In the Free State, the plus amounts varied between 1·63 inch or 12 per cent. at Kroonstad and 10·76 inches or 99 per cent. at Bethulie. In Natal, the excesses were generally over 10 inches, but ranged from 4·39 inches at Weenen to 34·65 inches or 157 per cent. at Empangeni. In Zululand, Hlabisa had a surplus of 46·05 inches or 208 per cent. over the average. In the Cape Province, the excesses were mainly between 5 and 7 inches in the north and east of the interior, the north-east, south-east, and Kaffraria, rising in several places to over 10 inches, decreasing to less than half an inch in the west, the south of the innermost plateau, and part of the south-west. The surplus varied from 0·63 inch or 5 per cent. at O'okiep to 13·92 inches or 16 per cent. at Aliwal North. The deficits were greatest, 5 to 8 inches, in the south-west, between 1 and 2 inches in the south, and less than 1 inch in the more southerly portions of the west coastal area. In South-West Africa, the accumulated rainfall for the five months was supra-normal, except in the south-east in the neighbourhood of Hierachabis, where a deficit of 0·88 inch or 22 per cent. was recorded, and at Rehoboth in the centre, which showed a shortage of 1·25 inch or 13 per cent. In the southern half, the excesses varied between 0·17 inch or 77 per cent. and 11·65 inch or 193 per cent. at Voigtsgrund. In the north, the surplus amounts lay between 0·33 inch or 92 per cent. at Swakopmund and 17·73 inches or 124 per cent. in excess of normal.

State of Country.—Transvaal: The unseasonable rains at the beginning of the month reacted detrimentally on all ripening and ripe crops, but considerably benefited the winter crops. In many areas the soil was too waterlogged to admit of the use of reaping machines or ploughs, so that the sowing of cereals was considerably retarded in such places. The cotton crop in the Rustenburg District was damaged to a slight extent by these rains, but good average crops were anticipated in this district, as also of tobacco, the picking of both of which was in full swing. In the Waterberg and Zoutpansberg Divisions, the cotton crop was good in some instances, but generally was only fair, while the opening of the bolls had been delayed by the cloudy weather in the first half of the month. Good crops of monkey nuts were expected, although the nuts already harvested had been discoloured by the excessive rain in some areas. Reaping of early mealies was being carried on in some areas, and, although good returns were anticipated in some cases, the crops on the whole did not come up to early expectations. In other cases reaping had not been started, owing to the damp weather having hindered the drying of the maize, so that the later varieties would not be ready for another month. In Ermelo District teff was completely ruined and the mealies damaged, particularly the white varieties, but in Carolina crops promised well where they had not been drowned. The absence of killing frosts was favourable to the ripening of crops. The veld generally was still green and in excellent condition, so that stock were mostly looking well.

Orange Free State: The general weather conditions were similar to those obtaining in the Transvaal, so that the saturated state of the soil prevented or hindered the use of reaping machines for the harvesting of maize, as in parts of the Fauresmith, Vrede, Lindley, and Ficksburg Districts. A spell of fine, sunny weather between the 8th and 27th was a welcome change from the excessive rains, although renewed precipitation during the last four or five days of the month gave another set-back to harvesting operations, as well as rendering the lands too wet for ploughing. In portions of the Ficksburg Division the mealie crop was considered hopeless, while in the Lindley District about three-quarters of the hay was left uncut and would require to be grazed off. The veld generally was still green and in good condition, owing largely to the absence of killing frosts, the first occurrence of this nature, and that in a light form, happening on the 7th at Kroonstad. Stock were generally in good condition, although in the Ficksburg Division they had a set-back as the result of cold wind. Blue-tongue and horse-sickness were prevalent in the Bloemfontein and Fauresmith Districts, causing some heavy losses. In the latter division 9 per cent. or over of the lambs were lost as the result of the rains at the end of the month.

Natal: Unusually mild weather, with an absence of sunshine and little or no frost, characterized the weather of May in Natal. The heavy rainfall along the coast from a little south of Durban to the interior of Zululand formed a marked contrast to the small quantities of 1 inch in the centre of the Province, whence the amount increased to over 2 inches in the south-west. In the Weenen District the crops were looking exceptionally well, whilst at Greytown more sunshine was required to ripen the crops. In the Klip River District the crops were bad owing to floods; mealie stalks had fallen or were rotting, and the cultivated lands were too wet to enter. So little frost had not been known for years in May. The veld was still mostly green, although it was turning brown at Mid-Illovo—the country was looking well. Stock were generally healthy.

Cape Province. In the wetter portions of the east and north the unusual rains caused some damage to standing crops, as at Kraaipan (Division Mafeking), whilst in the Albert Division no ploughing could be carried out. In Graaff-Reinet the prospects of crops were good. The late occurrence of frost caused little damage, only tender plants, like pumpkins, being affected, while in the Queenstown Division mealies were slightly nipped at the end of the month. A swarm of fruit-sucking moths was causing damage and loss to fruit farmers at Port Alfred. Drought continued severe in the Riversdale District, particularly in that portion known as the "Dunes," and but little ploughing was done in consequence. In the south and south-west rain was badly needed, and in the Caledon District the rainfall was so small that seeds could not germinate. Where excessive rains had fallen the veld was in excellent condition, but over the south-west the country was very dry, and the prospects for winter were far from bright in the District of Aberdeen. In the Port Alfred, Bedford, Tsolo, and Mount Fletcher Districts stock were doing well, also large stock in De Aar. Horse-sickness and blue-tongue period had passed in the Hay District; blow-fly was troublesome, and causing heavy losses in De Aar. In Albert, where the lambing season had commenced, many died from the effects of rain and cold; while in Caledon District sheep were getting low in condition, causing a poor outlook for the lambing season there. In Bechuanaland cattle were in good condition, and feed in the reserve was abundant. An unusual feature of the weather of this month was the occurrence of fogs after rain at Sydney-on-Vaal. At Riversdale (Cape Province) misty mornings were frequent, sometimes persisting to 10.30 a.m.

State of Water Supply, Rivers, etc.—The unusual prolongation of the rains into May ensured a good supply of water for cattle and domestic purposes over the greater part of the summer rainfall area. In the Division of Albert (Cape Province) fountains that had been dried up were once more flowing, and all streams were filled with water. At Gaberones, in Bechuanaland, the Notwani River was still flowing, so that a good supply of water was assured to the natives this winter. As indicating the unusual amount of rain this month in Bechuanaland, it is interesting to note that the total of 4·34 inches on seven days recorded at Verona (Vryburg Division) this month exceeded the aggregate for the corresponding month of the previous eleven years. From Sydney-on-Vaal it was reported the floods this month were the first serious floods, within the memory of old inhabitants of the district, to come down the Vaal River in the month of May. In Basutoland the country was flooded and roads rendered impassable. From Chelmsford, in the Aberdeen District, it was stated that in some parts the dams got very little water during the rainy season and were almost dry again. In portions of the Riversdale District drinking water was very scarce.

OBSERVERS' NOTES, MAY, 1925.

TRANSVAAL.

Groeneboom No. 444 (*Rustenburg*).—The rains in the early part of the month caused damage to the cotton crop, and picking is retarded by scarcity of labour. Mealies and other cereals getting ripe. Winter sowing of oats and wheat looking splendid. No locusts. Cattle in very good condition, owing to beautiful state of the veld. Rainfall: 2·04 inches on six days.—F. H. van Nouhuys.

Transvaal University College Experimental Farm, Pretoria.—The late rains greatly hampered the drying and harvesting of maize, but the winter crops will benefit thereby. The veld continues in good condition, and stock are doing well. Rainfall: 3·94 inches on seven days.—The Manager.

Kopje Alleen (*Waterberg*).—Cattle are in good condition. Monkey nuts have been mostly harvested. The early drought and late rains materially deteriorated this crop. Cotton on some farms is good, but only fair on most. Some good crops of maize are probable, but on the whole this crop is not up to expectations in these parts. Reaping has not yet begun. Winter ploughing is going on merrily. Rainfall: 0·57 inch on seven days.—J. Lyall Soutter.

Nooitgedacht (*Waterberg*).—No frost registered in the screen, but on the ground on 8th. Nut crops good, but discoloured by the late rains. Veld in good condition. Rainfall: 0·63 inch on five days.—G. Gordon Brown.

Carolina.—The month has been fairly mild and sufficient rain has fallen to keep the ground wet, so that although winter has come and frost set in the ground underneath is still green, and winter-feed for cattle will not be too long. Crops promise fairly well where they were not drowned. Rainfall: 1·77 inch on ten days.—G. Mynhardt.

Mosdene (Waterberg).—A normal month, with calm, bright days and cold nights, with a little frost in latter part. Rainfall: 0·51 inch on four days.—E. E. Galpin.

Lichtenburg.—Fair amount of rain durng the month. Very little frost. Farmers are busy harvesting. Rainfall: 2·88 inches on eight days.—H. J. E. Swart.

Ermelo.—Farmers report that the late rains have damaged the mealie crop' particularly the white varieties. Teff is completely ruined. Rainfall: 1·02 inch on nine days.—J. Dean.

Potchefstroom Experimental Farm.—The month was characterized by decline in temperature, though only slight frosts were recorded, and an increase in the number of bright cloudless days. Rainfall: 1·95 inch on six days.—The Manager.

Bralbin (Rustenburg).—The abnormal rains have caused slight losses to the cotton crop. Cotton and tobacco picking is in full swing on all farms, and very good average crops will be harvested in these crops and mealies and monkey nuts. Rainfall: 1·48 inch on six days.—R. S. McPherson.

Middelburg.—Frost not severe. Delicate vegetables, e.g. green beans, were only killed by frost on 18th, and even then frost would not have done it, had it not been for the cold south-east wind that day. Rainfall: 1·58 inch on eight days.—J. B. Kotze.

Vlakplaats No. 277 *(Heidelberg).*—Reaping started on yellow mealies and other early variety, but the others will not be fit to reap for another month. Rainfall: 1·01 inch on five days.—B. H. Drieband.

Elandsfontein (Potchefstroom).—Lands are still too wet for ploughing' Rainfall: 1·55 inch on five days.—P. J. Davidtz.

Eleazar (Potchefstroom).—Crops very favourable. Rainfall: 1·76 inch on five days.—W. Jooste.

Irenedale (Standerton).—9th May, first plants nipped by frost. Lands too wet for mowing machine. Rainfall: 1·72 inch on six days.—E. V. Musshenbroek.

Altydmooi (Zoutpansberg).—Crops are about average this season. Stock looking well. Rainfall: 0·97 inch on seven days.—Mrs. A. L. Gettliffe.

Doornkloof (Zoutpansberg).—Cattle fat and veld excellent. Cotton fair, but opening of bolls delayed owing to dull weather during first half of the month. Rainfall: 3·38 inches on four days.—S. M. Ralston.

ORANGE FREE STATE.

Kroonstad.—The period of excessive moisture came to an end on the 7th with the appearance of white frost. Farming operations have been retarded and a further set-back to reaping the maize crop has been occasioned by the unwelcome fall of rain during the last days of the month. Rainfall: 1·80 inch on ten days.—A. C. Mason.

Holfontein Plantation (*Kroonstad*).—A very nice month. No actual cold weather has so far been experienced. The days are all that can be expected at this time of the year. Some farmers are very busy reaping mealies. No stock diseases reported. Rainfall: 1·60 inch on four days.—The Forester.

Belgrave (*Bloemfontein*).—Blue-tongue has again broken out. A few more horses have died of horse-sickness. Heavy frost. Rainfall: 1·99 inch on eight days.—W. W. Bird.

Maloppospraai (*Ficksburg*).—Condition of stock set backward by cold winds. Veld not in good condition; too much rain. Nearly impossible to get into lands. Mealies hopeless. Rainfall: 2·82 inches on eight days.—J. P. le Roux.

Kismet Estate (*Lindley*).—Kaffir corn ripe and in first-class order. Maize all matured, but drying slowly owing to continued rains. Saturated condition of ground has caused serious losses, the farmers being quite unable to get into the lands with mowing machines; has resulted in at least 75 per cent. of the hay crop being left uncut. This will now have to be grazed off—a most wasteful method. Rainfall: 2·22 inches on seven days.—W. F. Austin.

Woudzicht (*Vrede*).—This month was very mild. Grass remained green till end of month. Lands still very wet; no chance for reaping mealies. Rainfall: 3·39 inches on seven days.—J. N. Kohler.

Kafferfontein (*Fauresmith*).—Blue-tongue and horse-sickness started from 28th February and kept on till 10th of May. Winter kept away a month longer than usual. We have lost heavily from blue-tongue. Our lands are in such a state that we cannot start ploughing. The last six days of May we have lost about 9 per cent. of lambs—some farmers even more—owing to rains. Rainfall: 3·39 inches on eight days.—N. van Rensburg.

Bonafide (*Thaba 'Nchu*).—First frost on 8th inst., which was a welcome change from the excessive rains we have had. From 8th to 27th fine sunshine, which was most welcome. Rainfall: 1·81 inch on five days.—R. Morgan.

NATAL.

Greytown.—Mild weather on the whole, with lack of sunshine first half of month and last week. Plenty of grass and veld quite green. Crops require sunshine to ripen off. Rainfall: 0·44 inch on nine days.—J. M. Handley.

Nottingham Road (*Weenen*).—Very mild. So little frost in May has not been known for years. Stock healthy. Green crops look particularly well. Rainfall: 0·36 inch on seven days.—Miss E. Smythe.

Ismont (*Mid-Illovo*).—Veld beginning to get brown, though still good pickings for stock. No frost. Rainfall: 0·81 inch on eight days.—Lieut.-Col. J. W. V Montgomery, C.M.G., D.S.O.

Pietermaritzburg.—May has been very seasonable. Owing to previous heavy rains country and stock are looking well. Rainfall: 0·74 inch on five days.—The Staff (Mental Hospital).

Ladysmith.—A clear, dry month, with a few light frosts and several windy days. Rainfall: 1·12 inch on six days.—D. A. R. Leathern.

Hampstead (*Klip River*).—Crops still damp; most mealie-stalks fallen or rotted as result of incessant rains. Cultivated lands still too wet to ride a horse into easily. Very slight frost. Rainfall: 2·37 inches on five days.—R. A. Luck.

Bluebank (*Klip River*).—First slight frost on 20th inst.: only very slight frosts to end of month. Veld in good condition, but crops bad owing to floods. Rainfall: 0·60 inch on four days.—T. N. Niland.

Cape Province.

Tussenbeide (*Caledon*).—Abnormal low rainfall for this month, also preceding months; sheep getting in low condition, poor outlook for lambs: bad for sown crops, seeds cannot germinate. Rainfall: 0·65 inch on five days.—S. D. F. de Wet.

Snydersfontein (*Beaufort West*).—Soft rains fell here from the morning of the 29th and fell at short intervals to the end of the month. Weather is not very cold and still promising for more rain. Rainfall: 0·97 inch on two days.—A. G. van der Westhuizen.

Bloemhof (*Graaff-Reinet*).—Veld condition splendid for the water per day. and prospects of crops rosy. Rainfall: 0·79 inch on four days.—A. E. Murray.

Chelmsford (*Aberdeen*).—This month was very dry and windy, with cold snaps and frost. Prospects for the winter not very encouraging. Dams in some of these parts got very little water in during the rainy season and are almost dry again. Rainfall: 0·17 inch on one day.—F. Hayward.

Slingersfontein (*Fraserburg*).—Heavy frosts at nights and warm days. Locusts breeding heavily all over the district. Rainfall: 0·84 inch on three days.—A. J. Hugo.

Ezelsfontein (*De Aar*).—It remained summer weather up to the middle of this month, but since the cold set in with a vengeance, heavy frosts falling every night. *Sheep:* The blow-fly was very troublesome, and a good many losses are reported; otherwise sheep are doing well and are fat, also all large stock. *Locusts:* Hatchings in the north of district, this side clean. Rainfall: 1·67 inch on six days.—W. S. Marais.

Peiserton House (*Hay*).—Frost fell on the 8th inst., and daily since then during the month. Horse-sickness and blue-tongue period over. Large flying swarms of locusts have done enormous damage to the grazing all over the district, and are now pairing, but the greater part of the mealie crop has been saved. The district has been overrun with flying swarms. Fairly heavy showers at end of May, rather unusual for this district. Although frost has fallen, the month has been a very mild one. Veld is saturated. Rainfall: 3·72 inches on six days.—Dering Addison (Capt.).

Riversdale (*Cathcart*).—Frost on 9th—first—not enough to do any damage. One of the old gentlemen here who keeps a record says that this is the second latest frost in the last fifty years. Other frosts have been frequent during the month, but as yet the winter has been mild. Rainfall: 1·06 inch on four days.—C. R. Miles.

Bolotwa (*Contest*) (*Queenstown*).—Frost later than usual, only very tender things, like pumpkins, killed. Mealies only partially nipped at end of month. Rainfall: 0·72 inch on six days.—J. A. Spence.

Damplaats (*Albert*).—It was nice and warm until the 26th; light frost fell on 16th. The lambing season has begun, but many lambs are dying owing to too much rain and cold. Farmers cannot plough as the lands are still too wet, and sowing time is passing. Dried-up fountains and streams are filled with water. Rainfall: 3·13 inches on eight days.—A. Kruger.

Verona (*Vryburg*).—Most unusual amount of rain has fallen during this month, and on 29th we had very dark clouds to south-west, accompanied by heavy thunder. The amount of rain during this month has been more than the aggregate for the previous eleven months of May. Rainfall: 4·34 inches on seven days.—T. W. Rodger.

Port Alfred (*Bathurst*).—Weather generally fine during month; warm calm days, cold nights. Rain at end of month was most welcome. Stock healthy and veld in good condition. A very serious invasion of the fruit-sucking moth is causing considerable damage and loss of fruit to farmers. Rainfall: 1·59 inch on five days.—W. H. Pascoe.

Graaff-Reinet (*Convent*).—Weather during this month, on the whole, very fine and pleasant. Rainfall: 0·83 inch on seven days.—The Mother Superior.

Cape St. Blaize (*Mossel Bay*).—Country very dry; rain badly needed. Rainfall: 1·07 inch on seven days.—The Lightkeeper.

Aliwal North.—A mild warm month, very little frost, generally bright warm days. Rainfall: 2·50 inches on nine days.—Alex. Alcock.

Bedford.—Heavy frosts reported from the district. Live stock now in good condition. Rainfall: 1·13 inch on eleven days.—Thos. Hall.

Vryburg.—Veld in good condition, with more rain than May, 1924. Rainfall: 2·78 inches on seven days.—Sergt. H. White.

Kimberley (*Gaol*).—A real good month. Nights and early mornings very cold. Rainfall: 2·21 inches on eight days.—C. H. Dowler.

Riversdale.—Drought continued to be severe in certain parts of the district, especially the part known as the "Dunes." Water (drinking) very scarce in some places. Very little ploughing has been done. Misty mornings very frequent, and some mornings lasted up to 10.30 a.m. Rainfall: 0·63 inch on four days.—Rev. Martin Johnson.

Mount Fletcher.—Warm days and a few cold nights. The veld is still in good condition, and stock doing well. Rainfall: 0·87 inch on seven days.—The Gaoler.

Darling (*Malmesbury*).—Conditions still very dry. The light rains at end of the month hardly even penetrated spade deep. Rainfall: 1·63 inch on seven days.—T. H. Drake.

Sydney-on-Vaal (*Barkly West*).—Exceptional rainfall for this month, highest total recorded for May since observations have been made at this station. Existence of fogs after rain was also a very exceptional feature; very light frosts, which have not affected semi-hardy vegetation. High floods in river are also an unusual occurrence in this month and are stated to be the first serious floods, within the memory of old inhabitants of this district, to have come down the Vaal in the month of May. Rainfall: 3·09 inches on nine days.—F. W. Richards.

Grootfontein (*School of Agriculture*) (*Middelburg*).—Contrary to expectations, in February and March the first frosts were delayed, the first ground frost occurring only on the 8th of this month. Rainfall: 1·01 inch on five days.—The Principal.

Andriesfontein (*Hanover*).—Since the 8th, when first sharp frost, days were calm and cloudless, with nights cold. Stock improving with drier weather. Rainfall: 2·03 inches on seven days.—H. van der Merwe.

Nelspoort Sanatorium (*Beaufort West*).—Dull, damp month: cold winds. In early part of month horse-sickness and blue-tongue in sheep prevalent. Rainfall: 0·52 inch on four days.—Victor Allan.

Kraaipan (*Mafeking*).—It is seldom that farmers in Bechuanaland have had cause to complain of too much rain, but this season has been exceptionally wet, and some damage has been done to the standing crops. As a consequence the grain will not be of such good quality as would have been the case had the month been fine. Rainfall: 2·61 inches on eight days.—P. J. Hart.

Tsolo.—Country is splendid; lots of grass and stock are fat in comparison to what they were two months ago. No diseases in crops. Rainfall: 0·62 inch on five days.—H. P. Tilland.

BASUTOLAND.

Mafeteng.—Heavy rains on 27th and 28th. Country flooded and roads impassable. First frost of season on the 8th. Weather very mild for the time of year. Rainfall: 2·86 inches on six days.—F· Hodgson.

Mphorane (*Mafeteng*).—Snow on mountains from 27th. Rainfall: 4·59 inches on eight days.—D. Forrester.

BECHUANALAND.

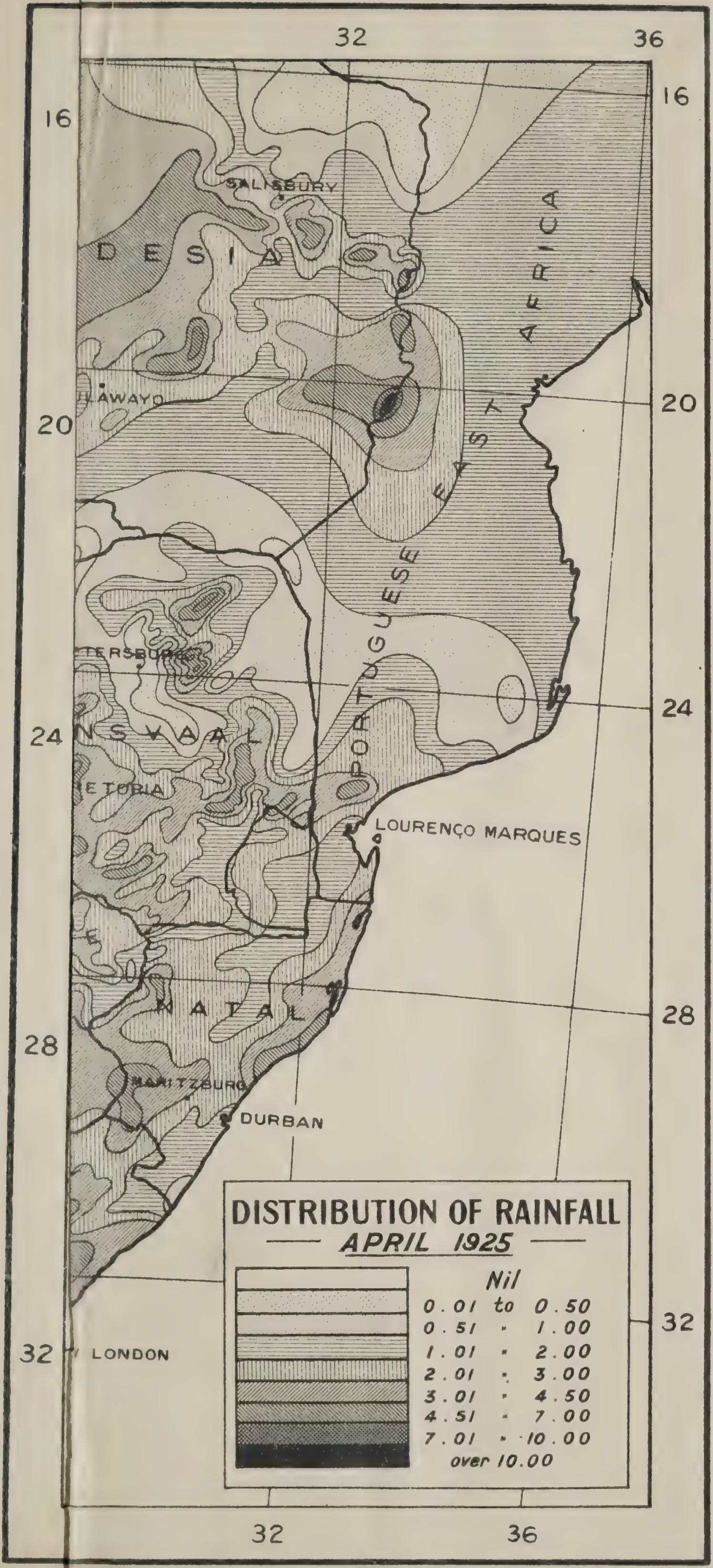
Gaberones.—The weather has been very pleasant, cold in the mornings and evenings. Cattle are in good condition, and the feeding in the reserve is abundant. We have experienced no frost as yet, although outside the reserve light frost has been reported. The Notwani River is still running, and a good supply of water is guaranteed for the natives this year. Rainfall: 2·78 inches on nine days.—A. M. Boyle.

JULY WEATHER CHARACTERISTICS.

Over the Cape Peninsula the rainfall is at its maximum during the month of July, when about 6·5 inches usually fall. In the adjoining south-western district and along the west coast the amount of precipitation varies but little from that of the preceding month, but along the south coast there may be quite an appreciable diminution, and probably 1·5 inch will not be exceeded. Over almost all other parts of the Union the minimum for the year should be reached; the month may indeed be quite rainless, with sunny, warm days and cold, cloudless nights.

With the sun on its return journey the day temperature should slightly increase, except in the south-west of the Cape, where the rainfall exercises an influence. The nights are, however, colder, and the result is a general decrease in the mean air temperature as compared with June. The normal mean temperature is about 59 degrees over the Transvaal low veld; 57 degrees along the south coast; 56 degrees in the south-eastern districts; 55 degrees over the Cape Peninsula; 53 degrees along the west coast, in Kaffraria, over the east-central Karroo and the south-west of the Cape, and in Natal; 51 degrees over the southern Karroo; 50 degrees over the west-central Karroo and the Cape northern borders; 49 degrees over the Transvaal high veld; 47 degrees over the Cape north-eastern districts; 46 degrees in the Orange Free State and Basutoland; and 45 degrees on the northern Karroo. Frosts are frequent.

Over the Cape Peninsula there is an increased frequency of winds from those points of the compass lying between north and west-north-west, north-west being still the prevalent direction, but a decrease in all other directions except south-west. The south-east of the Cape Province shows an increase of north-easterly, north-westerly, and south-westerly breezes, but a decrease in those from other directions. The principal wind over this part of the country has shifted to north-west from west-north-west during the preceding month. In the north of the Cape the frequency table shows an increase of winds from points lying between west-north-west and east-north-east, also of southerly and south-westerly winds, with a decrease of south-easterly breezes; the prevalent wind now blows from east-north-east. Although there is an increased frequency of easterly breezes over the Transvaal, affecting all points between north and south-east, together with a decrease in those from all other directions, the prevalent direction remains the same as during June, viz., north-north-west over this part of the high veld.

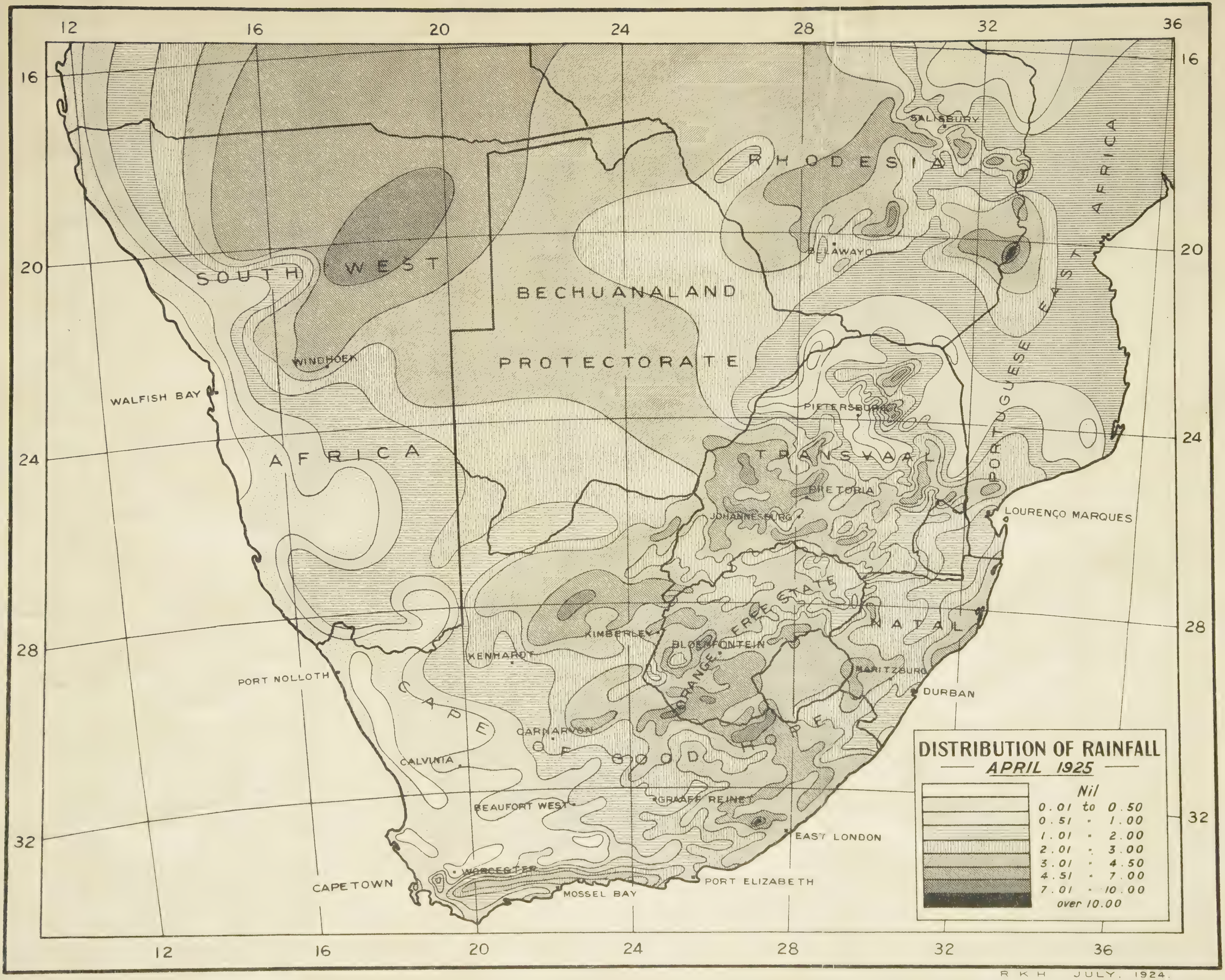


DISTRIBUTION OF RAINFALL

APRIL 1925

R.K.H. JULY, 1924.

SOUTH AFRICA



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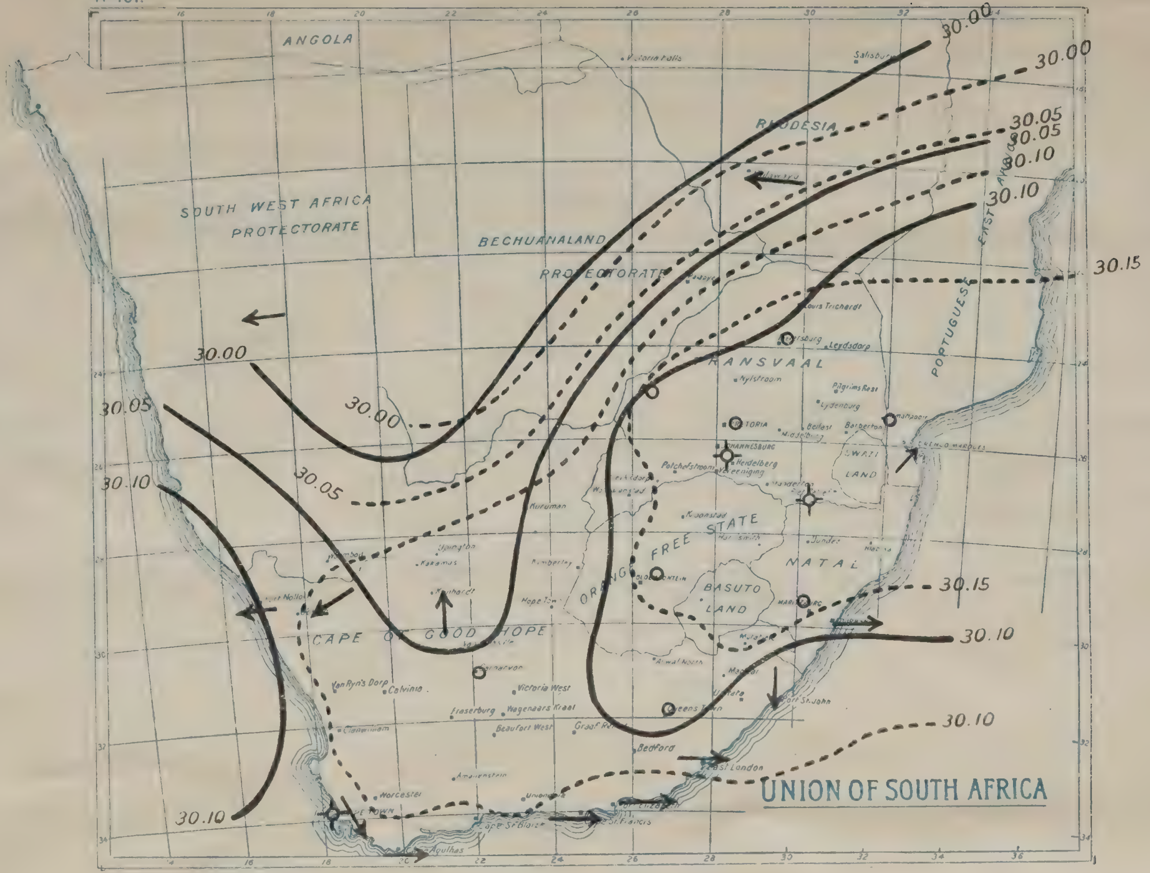

May, 1925. Prevailing Winds and Mean Barometric Pressure at 8.30 a.m.
The dotted lines indicate the normal distribution for May.

AIR TEMPERATURES (SELF-REGISTERING THERMOMETERS IN THERMOMETER-SCREENS), MAY, 1925.

Station.	Observer.	Mean Maximum.	Mean Minimum.	Mean Monthly Tempera-ture.	Normal Monthly Tempera-ture.	Differ-ence from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
Transvaal—		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Barberton	W. Grubb	73·8	51·2	62·5	63·6	− 1·1	81·0	23rd	43·0	20th.
Belfast	The Forester	62·2	32·6	47·4	51·2	− 3·8	72·0	29th	23·0	20th.
Bloemhof	Sergt. C. J. Jordaan	68·9	41·1	55·0	55·1	− 0·1	76·8	1st	34·0	26th.
Ermelo	J. Dean	62·5	38·0	50·2	52·6	− 2·4	71·2	28th	30·3	19th.
Johannesburg (Observatory)	The Staff	61·0	43·4	52·2	54·4	− 2·2	68·5	1st	32·3	8th.
Klerksdorp (Strathmore)	C. Scott	68·2	39·4	53·8	56·4	− 2·6	76·0	1st	32·0	18th and 19th.
Komatipoort	A. H. White	79·1	53·1	66·0	68·1	− 2·1	86·0	23rd	41·0	20th.
Louis Trichardt	C. L. Cope	69·5	47·1	58·4	60·1	− 1·7	77·0	6th and 7th	37·0	22nd.
Middelburg	J. B. Kotze	66·0	38·3	52·1	54·4	− 2·3	75·0	1st	29·0	20th.
Nylstroom	G. Bakker	70·1	40·5	55·3	58·6	− 3·3	76·5	6th	35·0	20th.
Pietersburg	B. Roos	70·2	45·4	57·8	58·1	− 0·3	76·0	28th	36·0	19th, 22nd, and 26th.
Piet Retief	J. Werner	66·4	44·1	55·3	57·2	− 1·9	74·0	28th	37·5	10th and 21st.
Pigeonhole (New Agatha)	—	—	—	—	—	—	—	—	—	—
Pilgrims Rest	E. M. Skea	67·7	42·6	55·2	56·4	− 1·2	74·5	6th	32·0	20th and 21st.
Potchefstroom (Exp. Farm)	The Manager	66·0	38·5	52·2	54·2	− 2·0	74·4	1st	31·5	9th.
Pretoria (Meteorological Office)	The Staff	68·7	43·2	56·0	56·6	− 0·6	77·8	1st	34·2	23rd.
Rustenburg	H. J. Streatfield	69·7	42·1	55·9	59·7	− 3·8	78·0	1st	35·0	11th, 20th, 21st, 22nd, 23rd, and 24th.
Standerton	The Magistrate	65·0	36·6	50·8	50·6	+ 0·2	73·5	29th	27·0	26th.
Zeerust	H. Dietrich	68·8	41·2	55·0	56·4	− 1·4	77·0	1st	32·6	22nd and 23rd.
Swaziland—										
Mbabane	Swaziland Police	66·3	45·8	56·0	59·6	− 3·6	73·0	7th	31·0	20th.
Orange Free State—										
Bethulie	J. J. Wardhaugh	63·5	36·6	50·0	53·1	− 3·1	69·5	1st	26·0	25th.
Bloemfontein	G. A. Schepers	63·5	38·5	51·0	53·0	− 2·0	73·6	1st	30·6	25th.
Harrismith	The Forester	58·4	38·1	48·2	49·1	− 0·9	66·0	1st and 21st.	28·0	8th.
Kroonstad	A. C. Mason	66·1	37·8	51·9	52·2	− 0·3	71·9	2nd	30·0	22nd.
Ladybrand	The Forester	61·0	39·9	50·5	51·0	− 0·5	67·0	1st, 2nd, and 3rd.	33·0	8th.
Lindley	J. Murphy	63·9	36·8	50·4	51·4	− 1·0	73·5	1st	28·5	23rd.
Natal—										
Dundee	W. Thorrold	66·9	40·8	53·8	58·0	− 4·2	75·0	22nd	31·0	19th.
Durban (Point)	The Port Captain	73·6	59·8	66·7	67·8	− 1·1	79·4	7th	54·2	20th.
Empangeni	The Forester	71·6	56·7	64·1	66·4	− 2·3	81·0	28th	51·0	19th and 26th.
Estcourt	The Town Clerk	66·6	42·1	54·4	56·8	− 2·4	74·0	27th	32·0	19th.
Hlabisa	E. E. Redgrove	69·7	54·4	62·1	66·4	− 4·3	78·0	28th	48·0	18th.
Ladysmith	D. A. R. Leathern	68·0	45·1	56·5	57·6	− 1·1	74·0	22nd	36·0	19th.
Maritzburg (Mental Hospital)	The Staff	68·6	47·4	58·0	61·9	− 3·9	80·2	27th	40·2	19th.
Stanger	C. C. Foss	73·5	57·8	65·6	67·0	− 1·4	81·0	23rd	52·0	20th.
Weenen	The Gaoler	69·5	44·3	56·8	58·6	− 1·8	76·0	1st	35·0	20th.

AIR TEMPERATURES, MAY, 1925—(*continued*).

Station.	Observer.	Mean Maximum.	Mean Minimum.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
Cape Province—		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Aliwal North	Alex. Alcock	63·2	36·1	49·7	51·8	− 2·1	71·0	1st	27·0	25th.
Bedford	T. Hall	64·7	44·6	54·6	58·7	− 4·1	74·0	21st	34·7	24th.
Capetown (Royal Observatory)	The Staff	70·6	51·0	60·8	58·9	+ 1·9	86·3	10th	41·5	11th.
Carnarvon	A. P. Malherbe	64·6	37·4	51·0	51·6	− 0·6	73·0	1st and 11th.	27·0	25th.
Clanwilliam	C. B. van Zijl	75·1	44·1	59·6	60·8	− 1·2	88·0	13th	34·0	26th.
East London	The Port Captain	69·9	53·8	61·9	62·4	− 0·5	89·0	27th	47·0	25th.
Graaff-Reinet (Convent)	The Mother Superior	69·2	47·2	58·2	58·4	− 0·2	78·3	12th	39·0	8th.
Grahamstown	The Vet. Res. Officer	67·4	40·5	54·0	58·6	− 4·6	76·2	22nd	32·0	25th.
Groot Drakenstein	A. Franceys	72·8	47·3	60·0	58·8	+ 1·2	87·0	11th	37·5	23rd.
Kenhardt	A. Seydell	71·0	43·5	57·3	58·4	− 1·1	82·0	1st	32·0	9th.
Kimberley	C. H. Dowler	67·3	43·5	55·4	55·8	− 0·4	77·5	1st	30·0	8th.
Kingwilliamstown	W. A. Kindness	69·6	47·2	58·4	60·8	− 2·4	80·5	21st	38·0	26th.
Kokstad	H. D. Coyte	63·3	38·7	51·0	53·7	− 2·7	72·8	21st	30·3	19th.
Mafeking (Convent)	The Mother Superior	66·6	41·9	54·2	58·6	− 4·4	71·9	25th	32·0	18th.
Mossel Bay (Cape St. Blaize)	The Lightkeeper	67·5	55·1	61·3	61·2	+ 0·1	85·0	21st	49·0	24th.
Murraysburg	—	—	—	—	50·6	—	—	—	—	—
O'okiep	H. T. Wyles	67·8	49·2	58·5	61·0	− 2·5	76·7	3rd	40·2	23rd.
Port Elizabeth	The Lightkeeper	69·2	53·1	61·2	62·2	− 1·0	84·0	21st	47·0	24th and 25th.
Port Nolloth	The Lightkeeper	66·6	49·2	57·9	58·0	− 0·1	91·0	15th	38·0	18th.
Port St. Johns (Cape Hermes)	The Lightkeeper	71·7	59·4	65·6	64·6	+ 1·0	75·0	22nd, 25th, and 27th	55·0	19th.
Queenstown	H. Holley	64·9	40·1	52·5	55·2	− 2·7	71·0	21st and 27th	31·0	25th.
Somerset East	C. Harris	66·5	43·8	55·2	58·0	− 2·8	75·5	26th	34·0	24th.
Stutterheim	F. C. Bousfield	67·3	46·6	56·9	57·6	− 0·7	76·1	21st	37·0	25th.
Sydney's Hope	Rev. S. Rippon	65·4	49·9	57·7	60·6	− 2·9	75·0	22nd	42·0	24th.
Uitenhage	H. Inggs	74·9	45·4	60·1	61·8	− 1·7	84·5	13th and 21st	35·0	25th.
Umtata	P. Hackitt	69·5	43·9	56·7	58·3	− 1·6	79·8	27th	35·2	26th.
Vryburg	Sergt. H. White	68·0	40·1	54·0	53·8	+ 0·2	78·0	1st	33·0	26th.
Wynberg (Convent)	The Mother Superior	71·7	51·4	61·6	59·6	+ 2·0	85·8	12th	45·5	25th.
Basutoland—										
Mafeteng	F. Hodgson	58·3	38·3	48·3	54·4	− 6·1	66·0	1st and 3rd	30·0	8th.

RAINFALL, MAY, 1925.

Station.	Observer.	May, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
Transvaal—		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Barberton	W. Grubb	1·06	0·93	+ 0·13	23·97	17·55	+ 6·42	42·16	31·57	+10·59
Belfast	The Forester	1·61	0·61	+ 1·00	21·58	16·36	+ 5·22	38·14	32·29	+ 5·85
Bethal	H. F. Joubert	1·06	0·60	+ 0·46	14·40	13·93	+ 0·47	31·45	29·54	+ 1·91
Bloemhof	Sergt. P. J. Jordaan	1·56	0·51	+ 1·05	18·11	11·66	+ 6·45	29·46	18·20	+11·26
Claremont	S.A. Police	1·97	0·39	+ 1·58	11·63	10·73	+ 0·90	21·16	18·66	+ 2·50
Ermelo	The Forester	0·88	0·74	+ 0·14	13·47	14·41	− 0·94	30·01	31·53	− 1·52
Haenertsburg	S.A. Police	1·04	1·63	− 0·59	42·23	24·09	+18·14	61·15	38·08	+23·07
Heidelberg	W. ter Horst	1·22	0·48	+ 0·74	—	—	—	—	—	—
Johannesburg (Observatory)	The Staff	1·50	0·69	+ 0·81	21·35	16·26	+ 5·09	35·01	30·64	+ 4·37
Joubert Park, Johannesburg	Superintendent of Parks.	1·85	0·74	+ 1·11	24·83	18·35	+ 6·48	41·24	32·97	+ 8·27
Klerksdorp (Strathmore)	C. Scott	1·88	0·58	+ 1·30	18·01	13·34	+ 4·67	30·49	23·14	+ 7·35
Komatipoort	A. H. White	0·59	0·77	− 0·18	29·78	17·51	+62·27	48·28	27·42	+20·86
Louis Trichardt	C. L. Cope	2·69	0·81	+ 1·88	38·36	17·73	+20·63	54·23	29·64	+24·59
Middelburg	J. B. Kotze	1·53	0·57	+ 0·96	—	—	—	—	—	—
Nylstroom	G. Bakker	0·90	0·39	+ 0·51	21·54	13·92	+ 7·62	33·04	24·68	+ 8·36
Pietersburg	B. Roos	0·69	0·26	+ 0·43	14·72	11·34	+ 3·38	25·61	21·24	+ 4·37
Piet Retief	J. Werner	1·20	0·69	+ 0·51	24·74	18·12	+ 6·62	50·13	36·16	+13·97
Pigeonhole (New Agatha)	J. McCallum	2·31	1·44	+ 0·87	56·12	28·66	+27·46	81·66	47·47	+34·19
Pilgrims Rest	E. M. Skea	1·21	1·17	+ 0·04	44·05	25·43	+18·62	61·64	39·77	+21·87
Potchefstroom (Exp. Farm)	The Manager	1·95	0·65	+ 1·30	20·38	12·51	+ 7·87	34·33	23·53	+10·80
Pretoria (Meteorological Office)	The Staff	3·61	0·50	+ 3·11	24·00	15·85	+ 8·15	39·04	29·32	+ 9·72
Rooiberg	N. H. Monro	0·66	0·63	+ 0·03	17·05	14·11	+ 2·94	27·94	24·77	+ 3·17
Rustenburg	H. J. Streatfield	3·25	0·56	+ 2·69	22·41	14·40	+ 8·01	35·95	26·35	+ 9·60
Standerton	The Magistrate	2·32	0·55	+ 1·77	—	—	—	—	—	—
Wakkerstroom	J. C. Aspden	0·76	0·76	± 0·00	21·15	16·69	+ 4·46	37·49	32·09	+ 5·40
Woodbush I.	The Forester	3·04	1·88	+ 1·16	70·13	44·79	+25·34	103·45	70·87	+32·58
Zeerust	H. Dietrich	4·57	0·76	+ 3·81	22·51	14·12	+ 8·39	37·26	23·85	+13·41
Swaziland—										
Mbabane	Swaziland Police	1·40	1·21	+ 0·19	60·21	29·09	+31·12	99·98	52·60	+47·38
Orange Free State—										
Bethulie	J. J. Wardhaugh	2·38	0·80	+ 1·58	21·67	10·91	+10·76	29·20	17·10	+12·10
Bloemfontein	G. A. Schepers	2·25	1·06	+ 1·19	16·21	13·52	+ 2·69	26·29	21·31	+ 4·98
Boshof	E. W. Milton	2·73	0·74	+ 1·99	14·87	11·86	+ 3·01	24·68	19·22	+ 5·46
Harrismith	The Forester	1·26	0·72	+ 0·54	22·65	15·30	+ 7·35	39·97	29·28	+10·69
Kroonstad	A. C. Mason	1·80	0·95	+ 0·85	15·66	14·03	+ 1·63	32·97	23·97	+ 9·00
Ladybrand	The Forester	2·54	0·96	+ 1·58	24·23	14·97	+ 9·26	44·63	26·96	+17·67
Lindley	The Gaoler	1·78	0·96	+ 0·82	20·61	13·31	+ 7·30	—	23·97	—

RAINFALL, MAY, 1925—(*continued*).

Station.	Observer.	May, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
Natal—		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Dundee	W. Thorrold	0·46	0·79	− 0·33	25·68	17·49	+ 8·19	44·88	31·92	+12·96
Durban (Point)	The Port Captain	4·83	1·86	+ 2·97	33·52	19·61	+13·91	53·21	40·33	+12·88
Empangeni	The Forester	7·12	2·97	+ 4·15	57·65	23·00	+34·65	84·15	44·84	+39·31
Estcourt	The Town Clerk	0·68	0·51	+ 0·17	31·15	16·33	+14·82	52·62	28·67	+23·95
Hlabisa	E. E. Redgrove	4·41	1·55	+ 2·86	68·19	22·14	+46·05	93·13	43·06	+50·07
Howick	The Gaoler	0·38	0·74	− 0·36	31·31	17·86	+13·45	47·93	32·89	+15·04
Ladysmith	D. A. R. Leathern	1·12	0·60	+ 0·52	33·81	16·02	+17·79	54·11	28·27	+25·84
Maritzburg (Mental Hospital)	The Staff	0·74	1·09	− 0·35	33·48	19·66	+13·82	54·08	36·92	+17·16
Stanger	C. C. Foss	3·09	1·92	+ 1·17	40·17	19·16	+21·01	64·37	41·66	+22·71
Vryheid	The Gaoler	0·48	0·64	− 0·16	27·09	18·02	+ 9·07	49·13	34·79	+14·34
Weenen	The Gaoler	0·79	0·54	+ 0·25	19·42	15·03	+ 4·39	37·91	27·13	+10·78
Cape Province—										
Aliwal North	A. Alcock	2·50	1·00	+ 1·50	25·96	12·04	+13·92	33·57	19·80	+13·77
Beaufort West	The Gaoler	0·24	0·71	− 0·47	5·42	5·72	− 0·30	7·54	9·22	− 1·68
Bedford	T. C. Hall	1·13	1·55	− 0·42	13·81	14·59	− 0·78	21·82	25·60	− 3·78
Britstown	The Gaoler	1·26	0·70	+ 0·56	15·42	7·78	+ 7·64	19·00	11·02	+ 7·98
Calvinia	The Gaoler	2·18	1·12	+ 1·06	5·05	3·68	+ 1·37	8·19	7·17	+ 1·02
Capetown (Royal Observatory)	The Staff	1·47	3·90	− 2·43	2·76	8·03	− 5·27	13·00	20·95	− 7·95
Ceres	The Gaoler	2·19	6·15	− 3·96	3·24	11·73	− 8·49	22·10	34·52	−12·42
Carnarvon	A. P. Malherbe	1·28	0·62	+ 0·66	10·74	5·32	+ 5·42	14·32	7·56	+ 6·76
Clanwilliam	The Gaoler	0·93	1·39	− 0·46	2·17	2·82	− 0·65	5·51	7·15	− 1·64
Concordia	F. R. Carstens	1·21	1·05	+ 0·16	3·59	2·84	+ 0·75	5·77	5·54	+ 0·23
Driefontein (French Hoek)	The Forester	7·36	7·37	− 0·01	12·16	16·59	− 4·43	50·95	55·07	− 4·12
East London	A. Downie	1·60	2·32	− 0·72	20·97	15·07	+ 5·90	31·95	31·32	+ 0·63
Fraserburg	The Gaoler	0·70	0·60	+ 0·10	4·84	4·33	+ 0·51	6·24	6·33	− 0·09
Grahamstown	The Vet. Res. Officer	1·50	2·07	− 0·57	11·42	12·86	− 1·44	19·30	26·66	− 7·36
Garies	The Gaoler	0·15	0·71	− 0·56	1·15	1·62	− 0·47	3·91	4·13	− 0·24
Graaff-Reinet (Convent)	The Mother Superior	0·83	1·15	− 0·32	8·75	7·63	+ 1·12	12·55	13·30	− 0·75
Groot Drakenstein	A. L. Franceys	3·66	5·03	− 1·37	5·30	10·73	− 5·43	23·88	29·31	− 5·43
Griquatown	The Gaoler	3·18	0·73	+ 2·45	15·89	8·81	+ 7·08	23·60	12·50	+11·10
George	Rev. Canon B. Price	1·67	2·64	− 0·97	12·99	15·51	− 2·52	31·50	31·97	− 0·47
Hanover	The Gaoler	1·84	0·93	+ 0·91	12·46	8·65	+ 3·81	15·82	12·72	+ 3·10
Hopetown	The Gaoler	—	0·86	—	—	8·44	—	—	12·20	—
Kenhardt	R. Seydell	1·01	0·37	+ 0·64	5·15	3·98	+ 1·17	7·76	5·51	+ 2·25
Kimberley	C. H. Dowler	2·21	0·65	+ 1·56	16·14	10·04	+ 6·10	25·36	15·77	+ 9·59
Knysna	The Gaoler	0·93	2·54	− 1·61	7·23	11·52	− 4·29	21·73	26·43	− 4·70
Kokstad	H. D. Coyte	0·42	1·02	− 0·60	21·39	14·92	+ 6·47	40·33	26·57	+13·76
Kingwilliamstown	W. Kindness	1·29	1·46	− 0·17	16·88	12·55	+ 4·33	25·60	24·21	+ 1·39

RAINFALL, MAY, 1925—(*continued*).

Station.	Observer.	May, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
Cape Province (continued)—		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Kuruman	Res. Magistrate	3·56	0·51	+ 3·05	20·68	11·72	+ 8·96	—	16·65	—
Mafeking (Convent)	The Mother Superior	2·60	0·38	+ 2·22	18·79	13·30	+ 5·49	30·58	22·56	+ 8·02
Mossel Bay (Cape St. Blaize)	The Lightkeeper	1·07	1·60	− 0·53	4·92	7·45	− 2·53	11·07	15·94	− 4·87
Murraysburg	W. Rose Innes	—	1·03	—	—	6·90	—	—	10·47	—
O'okiep	H. T. Wyles	0·81	1·03	− 0·22	2·76	2·63	+ 0·13	3·94	5·93	− 1·99
Philipstown	The Gaoler	2·62	0·95	+ 1·67	19·50	8·83	+10·67	24·28	12·99	+11·29
Piquetberg	The Gaoler	1·32	3·07	− 1·75	2·40	6·26	− 3·86	17·06	17·69	− 0·63
Port Elizabeth	The Lightkeeper	2·22	2·37	− 0·15	6·18	8·58	− 2·40	15·20	20·70	− 5·50
Port St. Johns	The Lightkeeper	1·79	2·93	− 1·14	28·16	23·12	+ 5·04	48·60	48·09	+ 0·51
Port Nolloth	The Lightkeeper	0·89	0·42	+ 0·47	1·39	0·94	+ 0·45	2·30	2·02	+ 0·28
Prieska	The Gaoler	2·03	0·61	+ 1·42	14·06	6·97	+ 7·09	17·60	9·39	+ 7·21
Queenstown	H. Holley	0·75	0·88	− 0·13	16·98	13·37	+ 3·61	25·37	22·21	+ 3·16
Steytlerville	The Gaoler	0·39	0·64	− 0·25	3·71	5·22	− 1·51	6·09	8·94	− 2·85
Sutherland	The Gaoler	0·83	1·26	− 0·43	6·26	4·35	+ 1·91	—	8·32	—
Swellendam	The Gaoler	0·51	3·05	− 2·54	13·14	14·07	− 0·93	27·49	29·67	− 2·18
Sydney's Hope	Rev. S. Rippon	2·71	1·90	+ 0·81	11·00	10·46	+ 0·54	21·39	21·38	+ 0·01
Somerset East	C. Harris	0·33	1·46	− 1·13	10·77	13·27	− 2·50	18·10	24·48	− 6·38
Stutterheim	F. C. Bousfield	1·62	1·15	+ 0·47	21·60	15·77	+ 5·83	31·39	28·98	+ 2·41
Uitenhage	H. Inggs	0·94	1·34	− 0·40	6·65	7·78	− 1·13	13·60	16·22	− 2·62
Umtata	P. Hackitt	0·48	1·18	− 0·70	18·26	13·50	+ 4·76	28·77	24·48	+ 4·29
Uniondale	The Gaoler	1·07	1·51	− 0·44	3·51	5·83	− 2·32	9·76	12·21	− 2·45
Upington	The Gaoler	0·74	0·48	+ 0·26	10·90	5·12	+ 5·78	13·03	7·09	+ 5·94
Victoria West	The Gaoler	1·01	0·82	+ 0·19	7·51	6·85	+ 0·66	11·34	10·03	+ 1·31
Vryburg	Sergt. H. White	2·78	0·57	+ 2·21	19·94	13·00	+ 6·94	28·47	18·90	+ 9·57
Worcester	The Gaoler	0·24	1·70	− 1·46	1·22	3·93	− 2·71	5·08	10·59	− 5·51
Wynberg (Convent)	The Mother Superior	3·17	5·92	− 2·75	5·65	11·94	− 6·29	26·74	37·78	−11·04
Basutoland—										
Mafeteng	F. Hodgson	2·86	1·54	+ 1·32	29·57	18·64	+10·93	44·12	30·97	+13·15
South-West Africa—										
Aroab	S.W.A. Police	0·84	0·41	+ 0·43	10·47	6·10	+ 4·37	11·13	7·64	+ 3·49
Aus	E. Martins	0·71	0·19	+ 0·52	4·95	2·17	+ 2·78	5·82	3·47	+ 2·35
Bethanie	Rev. Peter	0·00	0·15	− 0·15	8·19	2·59	+ 5·60	9·71	3·26	+ 6·45
Duestenbrock	R. Matthiessen	0·25	0·39	− 0·14	15·24	11·03	+ 4·21	17·03	13·27	+ 3·76
Gabis	Rev. P. Rehor	—	0·65	—	—	2·89	—	—	4·21	—
Garinais	F. Bentling	0·82	0·26	+ 0·56	9·95	4·39	+ 5·56	11·15	5·98	+ 5·17
Gibeon	The Postmaster	0·24	0·05	+ 0·19	10·52	4·91	+ 5·61	11·11	6·09	+ 5·02
Gobabis	Rev. Irle	0·47	0·27	+ 0·20	16·28	11·91	+ 5·37	19·49	15·71	+ 3·78

RAINFALL, MAY, 1925—(*continued*).

Station.	Observer.	May, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
South-West Africa (continued)—		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches	Inches.
Grootfontein	Pitkowski	0·48	0·22	+ 0·26	27·13	17·11	+10·02	34·77	23·68	+11·09
Gr. Witvley	G. Maas	0·48	0·50	— 0·02	17·55	11·04	+ 6·51	21·35	14·70	+ 6·65
Haribes	G. Freund	0·16	0·33	— 0·17	8·23	6·42	+ 1·81	8·91	8·04	+ 0·87
Hierachabis	Rev. P. Stroka	0·30	0·32	— 0·02	3·09	3·97	— 0·88	3·40	3·88	— 0·48
Kalkfontein	S.W.A. Police	0·09	0·52	— 0·43	8·10	3·35	+ 4·75	9·01	3·93	— 0·92
Franzfontein	H. Janson	0·09	0·21	— 0·12	15·00	7·86	+ 7·14	15·61	10·07	+ 5·54
Luderitz Bay	E. Stoeber	0·05	0·11	— 0·06	0·39	0·22	+ 0·17	0·40	0·48	— 0·08
Maltahoebe	E. Just	0·05	0·09	— 0·04	8·43	5·32	+ 3·11	8·72	6·25	+ 2·47
Neu Heusis	Liebig's Extract Co	0·79	0·35	+ 0·44	19·20	10·93	+ 8·27	19·87	13·59	+ 6·28
Okahandja	B. Templin	0·25	0·37	— 0·12	21·07	11·03	+10·04	24·94	14·11	+10·83
Okasangumingo	R. H. A. Schneider	0·41	0·56	— 0·15	19·30	12·43	+ 6·87	23·18	17·66	+ 5·52
Omaruru	The Postmaster	0·50	0·09	+ 0·41	18·08	12·92	+ 5·26	19·79	15·27	+ 4·52
Otjiwarongo	The Magistrate	0·05	0·08	— 0·03	16·13	12·09	+ 4·04	16·35	16·01	+ 0·34
Outjo	The Magistrate	0·67	0·07	+ 0·60	21·68	11·65	+10·03	25·65	15·37	+10·28
Rehoboth	The Postmaster	0·46	0·15	+ 0·31	8·12	9·37	— 1·25	8·61	11·92	— 3·31
Rietfontein	B. Leist	0·34	0·34	± 0·00	32·03	14·30	+17·73	36·56	20·13	+16·43
Swakopmund	The Gaoler	0·04	0·03	+ 0·01	0·69	0·36	+ 0·33	0·79	0·65	+ 0·14
Tsumeb	Ing. Schetter	1·14	0·29	+ 0·85	28·16	16·73	+11·43	37·38	23·64	+13·74
Usakos	Rev. Diehl	0·24	0·21	+ 0·03	12·41	4·23	+ 8·18	13·30	5·21	+ 8·09
Voigtsgrund	A. Voigts	0·66	0·16	+ 0·50	17·68	6·03	+11·65	20·22	7·25	+12·97
Warmbad	E. Luchtenstein	0·00	0·16	— 0·16	3·44	2·62	+ 0·82	4·18	3·32	+ 0·86
Waterburg	D. Hahn	0·51	0·42	+ 0·09	22·19	14·69	+ 7·50	26·89	19·72	+ 7·17
Wilhelmstal	W. Boehmker	1·20	0·35	+ 0·85	17·90	9·78	+ 8·12	19·62	12·40	+ 7·22
Windhoek	Observatory	0·47	0·31	+ 0·16	20·20	11·50	+ 8·70	22·82	14·73	+ 8·09

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UNION OF SOUTH AFRICA.

DEPARTMENT OF IRRIGATION.

MONTHLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE.

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Mean pressure considerably less than usual, except on the north-west coast, where it was practically normal; mean temperature about $1\frac{1}{2}$ degree below the average; days slightly less than $2\frac{1}{2}$ degrees, and nights just over $\frac{1}{2}$ degree cooler than usual, practically daily radiation frosts over the interior with frequent shade temperatures below freezing-point, particularly at the end of the first week; some strong westerly and cold southerly winds in Natal, and unusually strong northerly to westerly winds in the west and south of the Cape Province; an excess of rainfall over the greater part of the Transvaal, the north and south of the Orange Free State, Basutoland, the south-east, south, and west coastal areas, and the greater part of the Karroos; exceptionally heavy rains, causing floods, washaways, dislocation of traffic, etc., in Bushmanland, Namaqualand, the west coast, the south-west (including the Cape Peninsula), the west and south of the northern Karroo; a sub-normal precipitation in Natal, the centre and south of the Transvaal, the middle and west of the Orange Free State, Kaffraria, the greater portion of the north-east, the south-east, the east-central Karroo and the northern border of the Cape Province, also Bechuanaland; a total absence of rain in parts of the east, north-east, south-west, west, and south of the Transvaal; portions of the south and west of the Orange Free State, Bechuanaland, the northern border, Kaffraria, and the north-east of the Cape Province; light showers of snow or sleet on 1st, 2nd, 4th, 8th, 9th, and 19th in parts of the north-east of the Cape Colony; also on the 13th in portions of Natal; these were the principal features of the weather of June, 1925.

Pressure.—The mean pressure during June was much lower than usual, being one-tenth to one and a half-tenth below the normal over the Transvaal, central Cape, Orange Free State, Natal, and along the south coast, but was practically normal on the west coast. The decrease in pressure was mainly due to a series of "lows" passing along the south coast during the first half of the month while anticyclones, although present on twenty-five days, were much less intense than usual.

On the 1st, the highest portion of a high-pressure system lay over the Transvaal and the front of another on the west coast, while an inverted V-depression lay over the southern parts of the Union with indications of a complementary "low" over the northern interior, a few showers had fallen in parts of the south-west and east of the Cape Province, the east of South-West Africa, the centre and east of the Orange Free State, Basutoland, and the south-west of the Transvaal; on the 2nd, a slight rise of half a tenth to one-tenth had taken place, except on the south coast where the barometer continued steady; otherwise conditions remained practically the same as on the previous day; rain had fallen in the interval over the west coastal area, the west of the northern Karroo and over the south-west; on the 3rd, a further slight fall had occurred over the south-west and along the west coast of the Cape Province, but a rise had taken place in the east and on the coast of South-West Africa, but a slight decrease in the interior; the southern "low" had pushed a little further on to the land in the south-west of the Cape Province; rain had again fallen over practically the same area as on the previous day; on the 4th, the southern "low" had progressed to the north-east and pressure had risen between two and three tenths in the south-west and west owing to the western "high" having advanced a considerable distance to the eastward; the eastern "low" had moved to the north-east leaving only a fraction of the rear over the land; pressure had also risen over the northern interior evidently pushing the interior "low" northward beyond the range of the map; rain had fallen over the west coast, the south-west, the western portion of the south coast, the southern and central Karroos, the south of the northern Karroo, a portion of the north-east Cape, the south and north of the Orange Free State, the south and west of the Transvaal; on the 5th, the western "high" had advanced further eastward covering the whole Union, and the only indication left of the southern "low" was the occurrence of moderate to high westerly and north-westerly winds along the south and south-east of the Cape; rain had continued in the west and south-west, the west of the northern Karroo and northern border, the other Karroos, portions of the north-east Cape, the south coast of Natal and several places in the south-east of the Transvaal; some snow was also reported from the east central Karroo; on the 6th, the Union was under the influence of the rear of the anticyclone which had moved further east and there were indications of another "low" approaching the south coast; rain was confined to a small area in the neighbourhood of the Cape Peninsula; on the 7th, pressure had fallen over practically the whole Union by amounts varying between two-tenths in the east and south to about half a tenth in the south-west, whilst a very slight rise had taken place on the coast of Namaqualand and South-West Africa; the result being that practically the whole of the Cape Province and the south of the Orange Free State lay under low pressure, having an isobar of 29·80 inches just off the south coast, while fragments of "highs" lay in the east and west; rain had fallen over the west and south-west of the Cape; on the 8th, the southern low-pressure area had intensified slightly, pressure being lowest (29·75 inches) over the Cape Peninsula, while the northern interior "low" was also making an appearance in South-West Africa and Bechuanaland; rain had continued over practically the same area as on the preceding day and had occurred some distance further east in the Karroos; on the 9th, the south-west "low" had apparently moved in a north-easterly direction and was represented by an isobar of 29·95 inches along the south-east and Natal coasts, being succeeded by a "high" having an isobar of 30·25 inches on the west coast; rain had fallen over the western half of the country and inland had extended to the south of the Orange Free State and the north-east of the Cape; on the 10th, the country was wholly under the influence of an anticyclone of moderate intensity, the highest isobar being 30·15 inches in the south and south-west; showers had fallen at a few stations in the west coast area, the west of the northern Karroo, the eastern portion of the southern littoral and at one or two places in the north-east; on the 11th, pressure had fallen between one and two tenths along the south coast and by a few hundredths in the west, but had risen by about half a tenth in the east where pressure was highest; except for a slight rain in the Peninsula, no precipitation was reported for the previous twenty-four hours; on the 12th, pressure had risen in the west and south-west but had fallen in the south-east and east by about half a tenth; the outer isobar of a " low " lay along the south-east coast while the rest of the country was under the influence of an anticyclone; showers had fallen over the southern portion of the west coast and over the south-west but no rain over the rest of the Union; on the 13th, the " high " had intensified over the land; pressure had increased by between two or three tenths in the south and south-west but had fallen slightly in the east; the winds in the south-west, where pressure was highest (30·25 inches), however, gave indications of an approaching " low "; since the previous observations rain had fallen all along the south and south-east coast and inland to the central Karroo; on the 14th, the barometer was seen to have risen by about two-tenths in the east and south-east, but had fallen by a similar amount in the south-west and by a less amount in the west; pressure was now highest (30·30 inches) over the south-east and the isobars, which had a north-west to south-east trend the previous morning, were now running practically north and south and were more compressed; the readings were lowest (29·95 inches) along the west coast; some showers had fallen over the south-east coast and in the south of Natal; on the 15th, the south-eastern " high " was lying over the Transvaal and Natal, and the isobar of highest value had decreased to 30·20 inches; a well-developed inverted V-depression with fresh to strong north to east winds now lay over the west of the Cape Province; the lowest reading of the barometer, being 29·75 inches, was situated over the Cape Peninsula; while the outer isobars of a complementary " low " lay over the northern half of South-West Africa; rain had fallen at a few stations in the west coastal area and on the south-east and Natal coasts; on the 16th, the front of an advancing anticyclone lay on the coast of South-West Africa and of Namaqualand; a slight fall of about half a tenth had occurred in the eastern part of the northern interior and on the coast of Portuguese East Africa and a further fall of two to three tenths had taken place in the eastern portion of the south coast area and on the east coast and of slightly less than one-tenth over the south-west; the southern isobars had flattened out so that they lay in a practically east and west direction; moderate to high north and north-west winds were prevalent over practically the whole Union; rain had fallen in Namaqualand, the west and south-west of the Cape Province; on the 17th, the southern " low " had pushed north-east and was now affecting Natal and the south of Portuguese East Africa; the lowest isobar, of 29·70, the same as on the previous day, now lay over the south coast; moderate to high north to west winds were common to practically the whole Union; rain had again fallen over the west and south-west and had extended into the south and west of the northern Karroo, the central and southern Karroos and along the coast as far as Port Elizabeth; on the 18th, conditions were practically the same as on the previous day, except that the " low " had pushed a little further north along the Portuguese coast, and a slight rise had taken place in the south-west of the Cape Province; rain had continued over the same area as on the previous day and extended to portion of the east of the Cape as far as Port Alfred and Barkly East; on the 19th, a further fall of about two-tenths had taken place in the west and south-west and a rise of about one-tenth in the east and south-east; the net result being as if the eastern high had been affected by a surge of increased pressure while the southern "low" was affected by a slight decrease in pressure causing an extension northwards of what was to all intents a separate "low" in the south-west with a separate circulation, while the western anticyclone had retreated northwards and westwards; rain had fallen over practically the whole of the Cape Province, south of the Orange River, and the south of the Orange Free State; on the 20th it was found that the "low" had entirely passed off, while the western "high" had advanced so as to cover the whole country, the barometric readings lying between 30·25 inches in the west and 30·00 inches in the east; rain had again fallen over the same area as on the previous day; on the 21st, pressure had risen generally by between two or three tenths, and the isobars had altered their trend from roughly north and south on the preceding day to a general west to east direction with gradients from south to north; rain had continued over the innermost plateau in the Cape Province and the east of the Cape, including the south-east coast, also in parts of Zululand and Swaziland; on the 22nd, the anticyclone of the previous day had decreased slightly in intensity, the highest isobar (30·35 inches) lying over the west coast and the interior of the Cape; slight to moderate northerly winds prevailed along the south and east coasts, indicating the presence of a "low" some distance off the south coast; rain had fallen over parts of Natal, the south, south-east, and north of the Transvaal; on the 23rd, the core of the anticyclone occupied the centre of the Union, having the value of 30·35 inches; northerly to north-westerly winds continued in the south-east; local showers had occurred in the south-east, east, and north of the Transvaal; on the 24th, the highest readings of the anticyclone were over the south-west of the Cape Province, the isobars were open to the south-west and lay in a north-east to south-west direction; west to south-west winds of moderate to gale force were blowing on the south and south-east coast; rain had fallen on the south coast and over the south-west; on the 25th, the greater part of the Union was covered by a closed isobar of 30·35 inches, with light variable winds over the interior but northerly in the south-east; no rain reported; on the 26th, an additional isobar (30·40 inches) had appeared over the centre and south-west of the Cape and was open to the south-west; moderate to strong west winds were blowing on the south and south-east coast indicating the presence of a "low" to eastward; rain had fallen locally in the south-west and part of the south coast; on the 27th, the centre of the "high" with an isobar of 30·50 inches, lay over Natal, whence pressure decreased in all directions; gentle to fresh northerly to easterly breezes blew on the south-east and south coasts; rain had fallen at the south-east and east coast stations and for a short distance inland; on the 28th, a closed isobar of 30·45 inches covered the Orange Free State and the south of the Transvaal, and pressure decreased westwards to 30·20 inches at Port Nolloth and 30·25 inches on the south coast; no rain was reported, except a little in Zululand; on the 29th, the core of the "high" (30·45 inches) had increased in area and now occupied not only the Orange Free State and south of the Transvaal, but also parts of Natal and Portuguese East Africa; pressure had decreased by about half a tenth on the west coast; no rain was reported; on the 30th, the 30·45 in. core had decreased over the land but was open to the east and a slight decrease had taken place over the south-west; no rain reported.

Temperature.—The mean temperature for June was 52·1 degrees or 1·4 degree less than usual. The deficit was mainly due to the mean day temperature (65·1 degrees) being 2·3 degrees less than the normal, while the mean night temperature (39·0 degrees) was only 0·6 degree under the average. A deficit in the mean maximum or day temperature was common to the four Provinces, whilst the mean minimum or night temperature was about normal, except in the Transvaal and Orange Free State, where it was considerably lower than usual. In the Transvaal, the days with a mean of 67·2 degrees was 0·7 degree, while the nights with a mean of 35·0 degrees were 1·5 degree cooler than the corresponding averages. In the Cape Province, the mean day temperature (63·8 degrees) was 2·9 degrees below normal, whilst the mean night temperature (41·9 degrees) was the same as usual. In the Orange Free State, the mean maximum (59·1 degrees) was 2·9 degrees less than usual, but the mean minimum (30·0 degrees) was 1·0 degree below the normal. In Natal, the mean maximum (70·4 degrees) was sub-normal by 3·1 degrees, but the mean minimum (45·9 degrees) was slightly below normal by 0·1 degree. Considering the stations separately, it is seen that the mean temperature for June was below normal except at a few stations in the north and east of the Transvaal, on the coast, in the south-east, in the northern Karroo, and in the west, where excesses of about 1 degree or less occurred. In the Transvaal, the deficits varied between 0·2 degree at Ermelo and 3·0 degrees at Strathmore (Klerksdorp), and the excess from 0·1 degree at Pietersburg to 1·0 degree at Barberton; in the Cape Province, the sub-normal quantities were frequently between 2 and 3 degrees, but ranged from 0·1 degree at Graaff-Reinet to 4·1 degrees at Sydney's Hope and the plus amounts from 0·1 degree at Stutterheim to 1·3 degree at Port St. Johns. In the Orange Free State, the shortages lay between 1·0 degree at Kroonstad and 2·7 degrees at Bloemfontein; in Natal, the minus quantities varied from 0·2 degree at Stanger to 2·9 degrees at Empangeni, while Ladysmith showed a normal mean temperature. In the Transvaal, the mean maxima were above the average in the north, east, and the middle south; and the mean minima were also in excess of the normal in the south-east; elsewhere both maxima and minima were lower than usual. The excesses in the mean day temperatures lay between 0·2 degree at Johannesburg (Observatory) and 2·8 degrees at Barberton; and the deficits from 0·4 degree at Belfast to 3·5 degrees at Potchefstroom. In the case of the mean night temperature the excesses were from 0·1 degree at Piet Retief to 1·2 degrees at Ermelo; and the deficits from 0·3 degree at Louis Trichardt to 4·8 degrees at Belfast. In the Cape Province, the day temperatures were everywhere lower than usual, the deficits varying from 0·7 degree at Mossel Bay, Port Elizabeth, and Kimberley to 6·0 degrees at O'okiep. The mean night temperatures in this Province were higher than usual at a few coast stations, also at some in the eastern interior, the centre of the northern Karroo and the west coastal area, the surplus quantities lying between 0·5 degree at Aliwal North and Somerset East and 4·6 degrees at Clanwilliam; the deficits elsewhere ranged from 0·4 degree at Umtata, Kingwilliamstown, and Capetown to 5·3 degrees at Grahamstown. In the Orange Free State, the mean maxima were everywhere lower than usual by amounts varying between 0·4 degree at Kroonstad and 6·0 degrees at Harrismith. The mean minima, on the other hand, were above normal in the east and north-east by 0·6 degree at Ladybrand and 3·0 degrees at Harrismith, but lower than usual elsewhere by amounts between 1·6 degree at Kroonstad and 3·8 degrees at Bloemfontein. In Natal, the days were also cooler than the average by amounts varying from 0·9 degree at Stanger to 4·5 degrees at Hlabisa (Zululand); the nights were warmer than the normal over the centre of the Province by quantities ranging from 0·7 degree at Durban to 4·3 degrees at Ladysmith; the minus amounts elsewhere varied between 0·7 degree at Maritzburg and 2·2 degrees at Dundee and Empangeni. The highest mean temperature during June was 63·9 degrees at Durban and the lowest 43·5 degrees at Belfast, a difference of 20·4 degrees. The highest mean maximum was 81·1 degrees at Komatipoort and the lowest mean minimum 26·1 degrees at Belfast. The warmest periods were from 2nd to 4th, 16th to 18th, 20th and 26th to end of the month; particularly on the 3rd when most of the Transvaal, Bechuanaland, the north and centre of the Orange Free State, and the greater part of Natal recorded the maxima for the month; and the coolest periods from 4th to 7th, 10th, 11th, 14th, 15th, 19th, 24th to 28th, and 30th: most widely on the 6th, when a large portion of the Transvaal and Cape Province were affected as well as a few stations in the Orange Free State and Natal. The mean of the highest readings at each station during June was 79·2 degrees, and of the lowest 31·1 degrees, giving a mean monthly range of 48·1 degrees. The highest temperature recorded this month was 91·0 degrees at Komatipoort on the 4th and 17th and at Stanger also on the 4th, and the lowest 14·0 degrees on the 6th at Belfast, showing an extreme range of 77·0 degrees for this month. *Frosts* were of practically daily occurrence throughout June; killing frosts were frequent, as at Thornycroft where the cotton crop was entirely killed and at Ezelsfontein (Division De Aar) where the veld was severely damaged.

Precipitation.—The rainfall this month showed a return to the winter distribution, being greatest in the west and south-west, reaching 10–20 inches, and even more in parts there. Fairly good rains amounting to between 2 and 4½ inches also occurred along the south coastal area, exceeding 7 inches over a small portion. Over the remainder of the country the precipitation decreased generally from 2 inches to "nil" over Gordonia, Bechuanaland, the northern border, east of the northern Karroo, the west and south-west of the Orange Free State; also portion of the west and south-west and practically the whole of the eastern low veld of the Transvaal, the east of Swaziland and a large area in the east of the Cape Province, including part of the north-east of Kaffraria as well as the south-west of Natal; other small areas of no rainfall occurred in the centre of Natal, Zululand, the east and north-east of the Orange Free State and the south central parts of the Transvaal. In South-West Africa rain was limited to the south and south-west, where it varied from between 3 and 4½ inches to a few hundredths. The total for this month at O'okiep in Namaqualand (4·94 inches on 13 days) was the largest total for any month recorded there during the last fifty years. Exceptionally heavy floods occurred on the Olifant's River and the Doorn River in the Clanwilliam district between the 17th and 20th, destroying or damaging about thirty buildings in the neighbourhood of Klaver, silting up vineyards and orange groves, affecting the roads and sweeping away farm telephone lines. In the Orange Free State, a patch having between half an inch and one inch occupied portion of the north and north-east, the remainder, consisting of the centre and south-west, having half an inch or less, a goodly portion of the centre and south-east of the Transvaal received between 1 and 2 inches, also part of the west, but elsewhere the rainfall was half an inch or less. Except along a portion of the north coast, where the rainfall varied between 0·51 inch and 2 inches, Natal received amounts of half an inch or less.

Compared with the normal, precipitation was more than three times the usual quantity in the west coastal area, the western half of the northern Karroo, as well as over the greater part of the Transvaal. From these areas the surplus amounts decreased steadily in narrowing more or less parallel bands to the "nil" areas in Bechuanaland, Gordonia, the northern border, the centre and south of the Orange Free State, as well as the north and east of the Transvaal and Kaffraria. The sub-normal areas may be roughly indicated as bounded on the south-west by a line, slightly convex to the north-east, extending from the south-east corner of South-West Africa to the coast a short distance north of East London; and by another line extending from the neighbourhood of Mafeking through the south-west of the Transvaal, the north and centre of the Orange Free State, the south-east of the Transvaal, the centre of Swaziland, thence to circling round the inner boundaries of the eastern and northern low veld of the Transvaal it terminates in the middle of its western boundary. The sub-normal area, therefore, consists of Gordonia, Bechuanaland, the northern border, the east of the northern Karroo, the east-central Karroo, the north-east Cape and Kaffraria, the west, north-west, north-east, centre, and south of the Orange Free State, Basutoland, Natal, Zululand ; the eastern half of Swaziland, the eastern and north high veld and the north-west, also a small portion of the extreme south-west of the Transvaal, together with a large enclosed detached area to the W.N.W. of Pretoria. Along the south coast, the rainfall was from one and a half to three times the normal quantity. The mean rainfall over the Union was 1·52 inches, being 0·71 inch or 88 per cent. higher than usual. The plus areas had a mean rainfall of 2·07 inches, which is 1·13 inches or 120 per cent. in excess of the normal ; while the minus areas showed a mean precipitation of 0·21 inch, being 0·30 inch or 59 per cent. less than the normal, over the areas so affected. In the Transvaal, the mean rainfall was 0·53 inch, that is to say 0·36 inch or 212 per cent. over the normal. The area with excess had a mean of 0·69 inch, being 0·52 inch or 206 per cent. greater than the normal ; while the area of deficient rainfall showed a mean of only 0·03 inch, or being 0·16 inch or 84 per cent. below the average. In the Orange Free State, the mean amounted to 0·30 inch, being 0·01 inch or only 3 per cent. below the normal ; the area having a surplus showed a mean of 0·59 inch, which is 0·35 inch or 146 per cent. above the normal ; on the other hand, the sub-normal area had a mean of only 0·08 inch, which is 0·27 inch or 77 per cent. lower than usual. In Natal, the mean for the month was only 0·27 inch, which is 0·26 inch or 49 per cent. less than usual ; the supra-normal area there had a mean of 0·42 inch, which is 0·22 inch or 110 per cent. higher than usual ; on the other hand, the much larger area showing a deficiency had a mean of 0·24 inch, being 0·37 inch or 61 per cent. under the average. In the Cape Province, the mean for June was 3·41 inches, being 1·77 inch or 93 per cent. in excess of the average ; the area of surplus precipitation showed a mean of 2·64 inches, which is 1·39 inch or 111 per cent. in excess of the average ; the area showing a deficit had a mean precipitation of 0·29 inch, which is 0·32 inch or 52 per cent. under the average depth. In South-West Africa, absolute drought prevailed, except in the south and south-west, where Aus, with 3·19 inches, showed an excess of 441 per cent. Some *thunderstorms* were reported from Glückstadt (Vryheid Division) on the 21st. *Snow* or *sleet* or both were reported from Icebell (Division Pearston) on the 1st ; from Lauriston (Barkly East Division) on the 2nd ; from Stonycroft (Division Albert) and Lekkervlei (Division Richmond) and Dordrecht (Division Wodehouse) on the 4th ; from Cyphergat (Division Albert) and Dordrecht (Division Wodehouse) on the 8th ; Rongpoort (Weenen) on the 13th and from Lekkervlei (Richmond Division) on the 19th.

The accumulated rainfall since the 1st July of last year (1924) was above normal over by far the greater portion of the Union. The exceptional areas consisted of part of the south-west of the Cape Province and of the south-east, the southern, and central Karroos ; also part of the coastal area of the Transkei ; the north of Natal and portion of the south-east of the Transvaal. In South-West Africa, deficits for the twelve months were limited to small areas in the south-east, the centre, and the north-west. In the Transvaal, the surplus amounts were mostly over ten inches in the east, north-east, south-east, and south-west ; elsewhere they were less than 10 inches, being least on the eastern high veld ; they varied from 34·81 inches or 73 per cent. excess at Pigeonhole (Zoutpansberg Division) to 2·92 inches or 10 per cent. at Bethal. At Ermelo, there was a small deficit of 0·09 inch or less than one per cent. In Swaziland, Mbabane showed a surplus of 47·58 inches or 90 per cent. of the average. In the Orange Free State, the largest excesses, over 10 inches, occurred in the north-east, east, and south, and decreased towards the centre, varying from 17·51 inches or 64 per cent. at Ladybrand to 4·61 inches or 21 per cent.

at Bloemfontein. In Natal, large excesses were recorded, except in the north, where Vryheid showed a shortage of 3·52 inches or 10 per cent. The surplus amounts ranged from 10·57 inches at Weenen to 49·72 inches or 114 per cent. at Hlabisa. In the Cape Province, the largest plus quantities were found in the Transkei, the north-east and the east and centre of the innermost plateau, decreasing to north, south, and west; they varied from 13·29 inches or 49 per cent. at Kokstad to 0·04 inch or less than 1 per cent. at George. The deficits, which were confined to the more southerly parts, ranged from 6·48 inches or 25 per cent. at Somerset East to 0·88 inch or under 2 per cent. at Port St. Johns. In South-West Africa, the excesses were frequently over 10 inches, particularly in the north and were fairly large in the southern half, where they were mostly between 3 and 5 inches; they varied between 16·42 inches or 82 per cent. at Rietfontein to 0·09 inch or 13 per cent. at Luderitz Bay. The deficits there ranged from 0·54 inch or 14 per cent. of the normal at Hierachabis to 5·53 inches or 55 per cent. at Franzfontein.

The accumulated rainfall since the beginning of 1925 showed a distribution relative to the normal similar to that for the twelve months, being in excess of the average except in part of the south-west, along the south coast, in the southern and central Karroos, and portion of the south-east of the Cape Province, as well as the centre of South-West Africa. In the Transvaal, the excesses were commonly from 10–30 inches in the east and north-east, and mostly between 5 and 10 inches elsewhere, except in the east of the high veld, where they decreased to less than 2 inches and in the west, where they were under 3 inches. The plus amounts in this Province varied between 28·08 inches or 97 per cent. at Pigeonhole (Zoutpansberg) and 0·49 inch or 3 per cent. at Ermelo. In the Orange Free State, the excesses were greatest, between 7 and 10 inches, in the east and decreased rapidly to north and west to under 3 inches. In Basutoland, Mafeteng had a rainfall for the first six months of 19·36 inches, being 11.85 inches or 61 per cent. above normal. In Natal, the excesses for the first half of the year were everywhere large, being mostly over 10 inches and ranging from 4·18 inches or 27 per cent. over normal at Weenen to 45·70 inches or 200 per cent. in excess of the average at Hlabisa (Zululand). In the Cape Province, the surplus amounts were mostly between 5 and 10 inches, but varying from 13·64 inches at Aliwal North to 0·12 inch or 1 per cent. at Uitenhage. The deficits were mostly small, less than 2 inches, but ranging from 2·60 inches or 18 per cent. at Somerset East to 0·05 inch or 1 per cent. at Beaufort West. In South-West Africa, the excesses were greatest, commonly over 8 inches in the northern half and mostly between 4 and 6 inches in the southern half, ranging, however, from 17·72 inches or 124 per cent. at Rietfontein to 0·32 inch or 87 per cent. at Swakopmund. In the centre, Rehoboth had a total for the half-year of 8·12 inches, that is 1·29 inches or 14 per cent. lower than usual.

State of Country.—Transvaal: On the whole, good reaping weather was experienced throughout the month, although severe frosts were frequently experienced, such as killed the cotton at Thornycroft, in the Waterberg Division. The late rains had somewhat delayed harvesting operations in some areas, but had facilitated ploughing and the breaking up of new lands. Cattle were generally in good condition, and the veld excellent.

Orange Free State: Bright, cold weather facilitated harvesting operations, and notwithstanding the heavy late rains the crops were turning out better than had been expected. A good deal of wheat and oats had been sown. Frosts were also frequent and severe over this Province; notwithstanding this fact, cattle were looking well, although they were suffering somewhat from alternate cold and warm days and windy weather in the Ficksburg Division.

Natal: Reaping operations were being extensively carried on but were yet general in the neighbourhood of Greytown. The crops were somewhat unequal, being excellent in some places and indifferent in others, as in Mid-Illovo, Klip River, and other districts, owing to damage by floods and heavy rains. The bean crop at Smithfield (Greytown) was reported to be very small, owing to excessive moisture. Heavy westerly and cold southerly winds were experienced in the Vryheid Division and laid low the mealies there, doing but little damage owing to the absence of rain. Frost was also experienced at times but stock were in good condition and the grazing good. Grass was being burned off in parts near Hillcrest.

Cape Province: In parts of the Uniondale District the rains were the best that had fallen for many years and cereals were progressing favourably, also in the Queenstown and De Aar Divisions. In the Division of Sutherland, however, farmers were unable to plough, but the veld was still in very good condition. Generally speaking, the veld was in excellent condition for winter grazing; cattle were in excellent condition for the time of year, although suffering from severe cold in De Aar Division.

Water Supply, etc.—As the result of the late rains, dams were well filled and underground water plentiful. Owing to the unusually abundant rain in Namaqualand, communication was disorganized as the result of floods and washaways. From Klaver (Van Rhynsdorp Division), it was reported that exceptionally heavy floods occurred there between the 17th and 20th. The discharge of the Olifants River was almost double the previous record. The Doorn River was also very high, the water being 2 feet over the roadway of the bridge, both approaches to which were destroyed. Long stretches of farm telephone lines were swept away; farms were badly silted up. Vineyards and young orange groves were covered with silt to a depth of 2 to 4 feet; about thirty buildings were destroyed or badly damaged. The water was level with the rails on Klaver bridge.

OBSERVERS' NOTES FOR JUNE, 1925.

TRANSVAAL.

Thornycroft (Warmbaths).—Cotton crop entirely killed by frost, average weight picked, 560 ℔. per acre. Rainfall: 0·91 inch on one day.—E. R. Sacke.

Nooitgedacht (Warmbaths).—Crops throughout the district satisfactory, harvesting somewhat delayed by the rain. No locusts, cattle in good condition. Rainfall: 0·48 inch on two days.—G. Gordon Brown.

Kopje Alleen (Waterberg).—The late rains this season have facilitated winter ploughing and large areas of old and new lands have already been turned over. The veld is good, dams are well filled and cattle are in excellent condition. Rainfall: 1·25 inch on two days.—J. Lyall Soutter.

SWAZILAND.

Hlatikulu.—Reaping in full swing. Cattle generally looking well. Rainfall: 0·52 inch on four days.—J. Pullen.

Orange Free State.

Holfontein Plantation (*Kroonstad*).—A nice month. Hardly any wind during mornings, but slight dust storms during afternoons. Farmers are all very busy with reaping and are expecting a good crop. Rainfall: Nil.—The Forester.

Belgrave (*Bloemfontein*).—The weather on the whole has been ideal during the day excepting on a few days when south-easterly winds blew. The nights were very cold with heavy frost in the mornings. Rainfall: Nil.—W. W. Bird.

Moloppodraai (*Ficksburg*).—Heavy frosts at night. Some days cold and windy, others warm. Stock suffering through these conditions. Rainfall: Nil.—J. P. le Roux.

Heilbron.—The weather remains bright and cold, affording every opportunity for harvesting. Rainfall: 0·43 inch on one day.—P. A. du P. Naude.

Elandslaagte (*Lindley*).—Frost every night. Maize in excellent condition, crops better than expected. Stock in good condition. Rainfall: 0·50 inch on one day.—C. J. S. Grove.

Kismet Estate (*Lindley*).—Heavy frost almost nightly. Weather conditions favourable for reaping crops. Rainfall: 0·39 inch on two days.—W. F. Austin.

Prospect (*Vrede*).—The month has been seasonable—sharp frost at night. There have been many beautiful warm days, especially towards end of month. In most cases live stock got into mealie lands and look well generally. Rainfall: 0·32 inch on two days.—T. Pitcairn.

Unity (*Winburg*).—Month fairly windy. Frosts very severe at night. Quite a lot of wheat and oats have been sown, just appearing above ground. Mealies and kaffir-corn are being reaped. Rainfall: Nil.—F. E. Parker.

Natal.

Glückstadt (*Vryheid*).—The month has been characterized by heavy west winds and cold south winds with heavy frost at night. The winds laid low the mealies, but owing to the absence of rain, little damage was done. All farmers are busy reaping. A few thunderstorms passed on the 21st. Rainfall: 0·61 inch on two days.—F. W. J. Schumann.

Bluebank (*Klip River County*).—Lovely days—heavy frosts. Very little wind. All stock in good condition but crops poor owing to damage done by floods in March. Rainfall: 0·15 inch on two days.—T. N. Niland.

Rongpoort.—Fine seasonable month. Sleet on the 13th and bitterly cold south wind. Frost and ice every morning. Rainfall: 0·14 inch on three days.—J. H. Bartholomew.

Ladysmith.—The month has been one of varying conditions of temperature as instanced by frost on 6th and 15th. Strong dust winds, 17th and 18th, followed by light showers on 21st and 22nd. Crops are excellent at some places, whilst at others, much damage has been done by heavy rains during earlier months. Condition of stock quite satisfactory for this time of year. Rainfall: 0·09 inch on two days.—F. R. Hillebrand.

Ismont (*Mid-Illovo*).—A typical June. Maize being reaped—a large percentage of cobs damaged owing to abnormal March rains. Grazing good for this time of year. Rainfall: 0·21 inch on two days.—J. W. Montgomery, Lt.-Col., C.M.G., D.S.O.

Hillcrest.—The weather during the month was fine with cold evenings. Early mornings: 14th, 25th, and 26th, ground white with hoar frost. Generally healthy. Grass being burnt off in places. Rainfall: 0·36 inch on two days.—T. Dawson Clothier.

Strathearn (*Weenen*).—Mild pleasant sunny days. Stock healthy. Rainfall: 0·32 inch on two days.—Miss E. Smythe.

Southfield (*Greytown*).—With the exception of a few days, weather has been very mild. Mealie reaping not general yet—too early yet to give general effect of excessive rainfall. Bean crop very small, owing to damage done by too much moisture. Rainfall: 0·14 inch on one day.—J. M. Handley.

Cape Province.

Stutterheim.—Weather unusually mild, very little wind. Stock in better condition than usually in June. Rainfall: 0·43 inch on seven days.—F. C. Bousfield.

Somerset East.—Good rains in district. Veld in splendid condition. Frosts fairly frequent, but snow has not yet fallen. Rainfall: 0·89 inch on seven days.—C. Harris.

Queenstown.—Cereal crops and all stock doing well. Veld in good condition, feeding plentiful.—H. Holley.

O'okiep.—Heaviest rainfall recorded in any month for past fifty years. Communications throughout whole district disorganized through floods and washaways. Rainfall: 4·94 inches on thirteen days.—H. T. Wyles.

Sutherland.—Veld still very good. No rain in Karroo, farmers cannot plough. Rainfall: 0·83 inch on three days.—Dr. D. A. Stegmann.

Rooi River (*Uniondale*).—Best rains we have had for many years. Cereal crops very promising. Rainfall: 1·81 inch on six days.—W. G. Schaap, Jnr.

Ezelsfontein (*De Aar*).—Locusts still hatching in this district. June has been a very cold month with heavy frosts which did severe damage to the veld. Crops progressing favourable. Stock both small and big in good condition, although they also seem to suffer from the severe cold. Rainfall: 0·67 inch on four days.—W. S. Marais.

Peiserton House (*Hay*).—Veld in good condition for winter grazing. Heavy frosts continue in parts. Very little disease amongst stock. Rainfall: Nil.—D. Addison.

Hazelmere (*Stutterheim*).—Sheep and cattle in excellent condition for this time of the year, grass quite green. Rainfall: 0·40 inch on six days.—Sinclair Arnold.

Klaver (*Van Rhynsdorp*).—Exceptionally heavy floods on 17th, 18th, 19th, and 20th. Olifants discharging almost double previous record. Doorn River also very high, two feet over roadway of bridge, of which both approaches were destroyed. Long stretches of farm telephone line swept away. Farm badly silted up; vineyards and young orange groves covered with from two to four feet of silt, about thirty buildings destroyed or badly damaged. Water was level with rails on Klaver bridge. Rainfall: 5·03 inches on twelve days.—W. M. Cameron.

Grootfontein (*Middelburg*).—Veld in excellent condition, underground water, according to boreholes, plentiful. Sheep and large stock in fine condition. Rainfall: 0·32 inch on four days.—E. J. van Meerten.

WEATHER CHARACTERISTICS FOR THE MONTH OF AUGUST.

Along the west coast and over the Cape Peninsula, the rainfall during the month of August is decreasing, but in the south-western districts the precipitation usually exceeds that of the previous month. The general tendency over the remainder of the Union is towards an increase, although the month may be quite rainless inland. The normal rainfall is about 6 inches over the Cape Peninsula; 3 inches in the Cape south-western districts; 2 inches along the south coast; 1·5 inch in the south-east of the Cape, along the west coast, and in Zululand; 1 inch in Natal, Basutoland, in the Cape north-eastern districts, and Kaffraria; and less than 1 inch in other parts of the Union.

The mean temperature of the air is now increasing rapidly inland, where sunny days and cloudless skies preponderate, and slowly along the coastal districts. A mean of about 64 degrees should be reached on the Transvaal low veld, while the normal in Natal is 61 degrees; in the south-east of the Cape and along the south coast, 58 degrees; over the east-central Karroo, 56 degrees; in the Cape Peninsula, on the southern Karroo, and over the northern borders, 55 degrees; in the Transvaal and over the Cape south-western districts and along the west coast, 54 degrees; on the west-central Karroo, 53 degrees; in the Cape north-eastern districts and Basutoland, 51 degrees; and in the Orange Free State and on the northern Karroo, 50 degrees. Frosts are still of frequent occurrence.

Compared with July, there is a marked increase in frequency over the Transvaal of north and north-westerly winds, but a decrease in all other directions; north-north-west is still the prevailing wind. In the south-east of the Cape Province, on the other hand, there is a decrease in frequency of north-westerly winds, but an increase of all others, particularly those from north-east, which constitutes the prevalent direction. In the north of the Cape Province, the principal wind is still from east-north-east; over this area there is a decrease in frequency of southerly, south-westerly, and north-westerly winds, but an increase of breezes from directions between north and south-east. Over the Cape Peninsula, north-westerly are still the dominant winds, notwithstanding a falling-off in their frequency and an increase in those from south. With a general increase in the wind-force and velocity, and continued dry weather over the interior, dust storms are apt to be of frequent occurrence at this period.

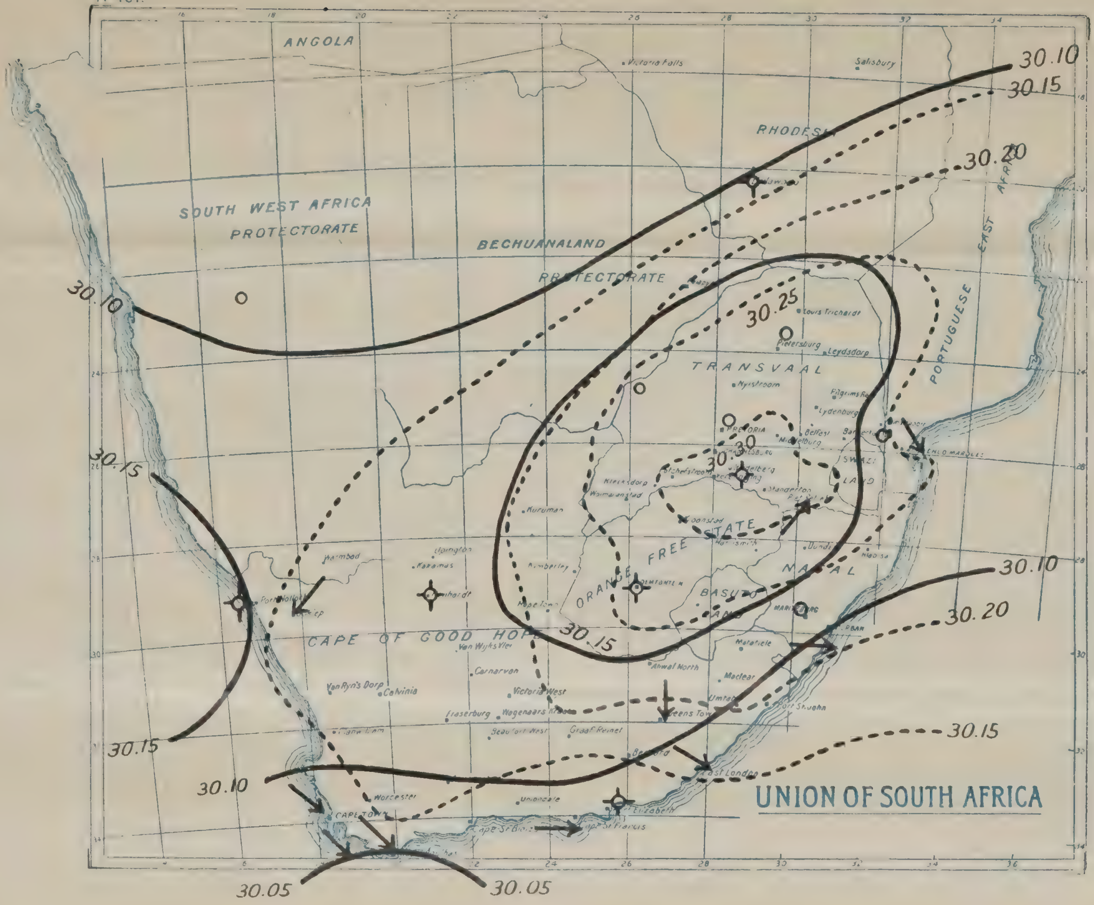
AIR TEMPERATURES (SELF-REGISTERING THERMOMETERS IN THERMOMETER-SCREENS), JUNE, 1925.

Place.	Observer.	Mean Maximum.	Mean Minimum.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
Transvaal—		°F.	°F.	°F.	°F.	°F.	°F.		°F.	
Barberton	W. Grubb	74·0	46·7	60·4	59·4	+ 1·0	85·0	3rd	38·0	6th.
Belfast	The Forester	60·8	26·1	43·5	46·0	− 2·5	67·0	3rd	14·0	6th.
Bloemhof	Sergt. C. J. Jordaan	—	—	—	49·7	—	—	—	—	—
Ermelo	J. Dean	61·1	32·7	47·2	47·4	− 0·2	68·9	3rd	20·2	6th.
Johannesburg (Observatory)	The Staff	59·5	39·0	49·3	50·4	− 1·1	68·2	29th	28·1	14th.
Klerksdorp (Strathmore)	C. Scott	65·1	29·5	47·3	50·3	− 3·0	75·0	3rd	21·0	27th.
Komatipoort	A. H. White	81·1	43·3	62·2	63·1	− 0·9	91·0	4th and 17th	32·0	26th.
Louis Trichardt	C. L. Cope	71·4	43·9	57·6	56·8	+ 0·8	81·0	20th	35·0	30th.
Middelburg	J. B. Kotze	64·2	28·6	46·4	48·6	− 2·2	71·0	3rd	19·0	6th.
Nylstroom	G. Bakker	70·6	35·4	53·0	53·4	− 0·4	78·7	3rd	27·0	6th.
Pietersburg	B. Roos	70·9	36·8	53·9	53·8	+ 0·1	80·0	3rd	30·0	30th.
Piet Retief	J. Werner	66·9	39·9	53·4	54·2	− 0·8	76·0	3rd	31·0	15th.
Pigeonhole (New Agatha)	J. McCallum	64·1	49·2	56·6	—	—	73·0	4th	43·0	14th and 15th.
Pilgrims Rest	E. M. Skea	68·2	35·7	51·9	52·2	− 0·3	75·5	3rd	27·0	6th, 11th, and 30th.
Potchefstroom (Experimental Farm)	The Manager	63·7	29·0	46·3	49·2	− 2·9	73·8	3rd	20·6	25th.
Pretoria (Meteorological Office)	The Staff	68·0	34·7	51·4	52·6	− 1·2	75·1	3rd	28·2	15th.
Rustenburg	A. Streatfield	67·9	34·6	51·2	54·0	− 2·8	74·0	3rd	26·0	6th.
Standerton	The Magistrate	62·9	27·2	45·1	45·4	− 0·3	71·1	3rd	17·0	15th.
Zeerust	H. Dietrich	67·0	31·9	49·4	50·5	− 1·1	74·0	3rd	27·0	6th.
Swaziland—										
Mbabane	Swaziland	66·5	42·5	54·5	56·0	− 1·5	76·0	3rd and 20th	31·0	6th.
Orange Free State—										
Bethulie	J. J. Wardhaugh	59·0	30·3	44·7	46·5	− 1·8	64·9	27th	21·0	14th.
Bloemfontein	G. A. Schepers	59·2	29·7	44·4	47·1	− 2·7	66·8	3rd	21·9	30th.
Harrismith	The Forester	55·1	33·3	44·2	45·7	− 1·5	63·0	3rd and 28th	24·0	10th.
Kroonstad	A. C. Mason	63·6	27·6	45·6	46·6	− 1·0	73·8	3rd	21·2	14th.
Ladybrand	The Forester	57·4	32·1	44·8	46·8	− 2·0	66·0	29th	24·0	6th.
Lindley	J. Murphy	60·9	27·0	44·0	46·8	− 2·8	72·0	3rd	19·0	6th.
Natal—										
Dundee	W. Thorrold	67·2	35·2	51·2	53·0	− 1·8	75·0	3rd	25·0	15th.
Durban (Point)	The Port Captain	72·8	55·0	63·9	64·9	− 1·0	78·4	18th	49·6	28th.
Empangeni	The Forester	72·0	48·3	60·2	63·1	− 2·9	81·0	2nd	39·0	30th
Estcourt	The Town Clerk	—	—	—	51·4	—	—	—	—	—
Hlabisa	E. E. Redgrove	70·6	51·2	60·9	63·6	− 2·7	82·0	3rd	44·0	6th.
Ladysmith	D. A. R. Leathern	66·8	38·0	52·4	52·4	± 0·0	76·0	3rd	28·0	15th.
Maritzburg (Mental Hospital)	The Staff	69·7	40·6	55·2	57·6	− 2·4	79·8	3rd	33·8	15th.
Stanger	C. C. Foss	73·5	53·1	63·3	63·5	− 0·2	91·0	4th	47·5	7th.
Weenen	The Gaoler	—	32·5	—	52·0	—	—	—	26·5	30th.

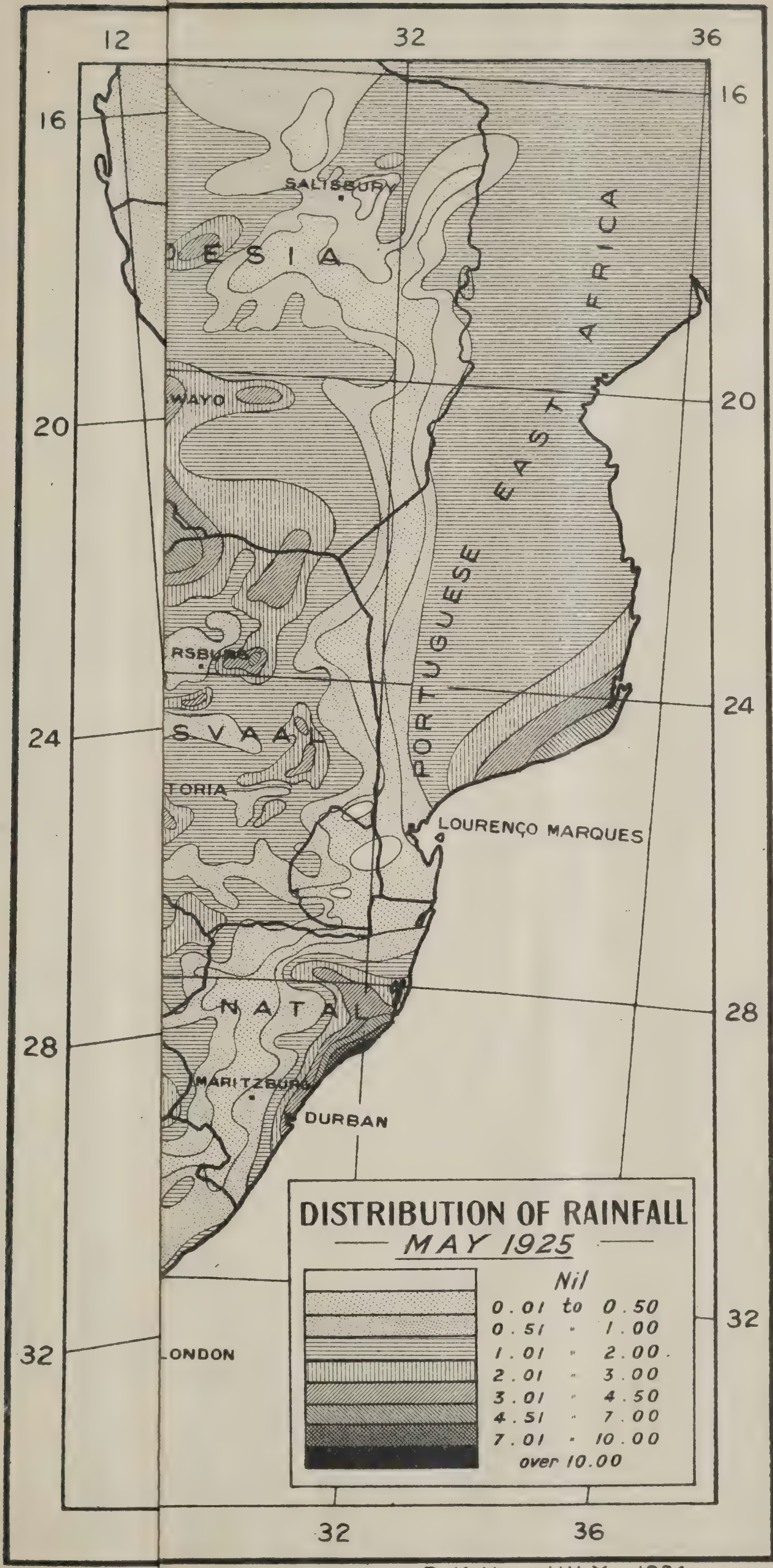
AIR TEMPERATURES, JUNE, 1925—(*continued*).

Place.	Observer.	Mean Maximum.	Mean Minimum.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes. Highest.	Date.	Lowest.	Date.
		°F.	°F.	°F.	°F.	°F.	°F.		°F.	
Cape Province—										
Aliwal North	A. Alcock	58·8	30·5	44·6	46·6	— 2·0	67·0	27th	23·0	26th
Bedford	T. C. Hall	62·8	43·2	53·0	55·2	— 2·2	73·0	28th	32·0	25th.
Capetown (Royal Observatory)	The Staff	61·6	47·9	54·7	55·4	— 0·7	77·2	29th	36·6	25th.
Carnarvon	A. P. Malherbe	55·2	33·1	44·2	44·1	+ 0·1	67·0	26th	26·0	25th.
Clanwilliam	C. B. van Zijl	65·4	46·8	56·1	54·9	+ 1·2	81·0	29th	38·0	28th.
East London	The Port Captain	68·4	49·4	58·9	60·4	— 1·5	79·0	16th	41·0	6th.
Graaff-Reinet (Convent)	The Mother Superior	63·7	45·3	54·5	54·6	— 0·1	75·3	28th	34·0	14th.
Grahamstown	Vet. Res. Officer	63·6	37·3	50·4	54·6	— 4·2	79·6	27th	29·8	25th.
Groot Drakenstein	A. Franceys	61·5	44·2	52·8	54·4	— 1·6	78·0	30th	37·0	23rd and 24th.
Kenhardt	A. Seydell	63·6	35·7	49·6	52·2	— 2·6	72·0	28th	28·0	26th.
Kimberley	C. H. Dowler	62·9	34·2	48·5	50·2	— 1·7	71·0	28th	27·0	26th.
Kingwilliamstown	W. A. Kindness	66·6	41·3	53·9	56·6	— 2·7	78·5	29th	33·0	6th.
Kokstad	H. D. Coyte	63·6	32·5	48·0	50·4	— 2·4	74·0	30th	20·0	15th.
Mafeking (Convent)	The Mother Superior	67·7	33·5	50·6	53·4	— 2·8	74·2	3rd	28·0	24th.
Mossel Bay (Cape St. Blaize)	The Lightkeeper	65·6	51·6	58·6	58·4	+ 0·2	81·0	29th	47·0	4th.
Murraysburg	—	—	—	—	46·8	--	—	--	—	—
O'okiep	H. T. Wyles	57·8	44·9	51·4	54·0	— 2·6	70·0	30th	35·4	5th.
Port Elizabeth	The Lightkeeper	65·9	49·9	57·9	59·1	— 1·2	80·0	29th	42·0	25th.
Port Nolloth	The Lightkeeper	64·2	48·4	56·3	55·4	+ 0·9	88·0	29th	39·8	11th.
Port St. John's (Cape Hermes)	The Lightkeeper	71·0	56·0	63·5	62·2	+ 1·3	77·0	29th	49·0	6th.
Queenstown	H. Holley	61·1	36·3	48·7	51·2	— 2·5	70·0	30th	23·0	15th.
Somerset East	C. Harris	62·7	41·8	52·2	54·0	— 1·8	74·6	29th	32·8	6th.
Stutterheim	F. C. Bousfield	64·8	44·2	54·5	54·4	+ 0·1	77·8	28th	35·7	25th.
Sydney's Hope	Rev. S. Rippon	60·2	45·6	52·9	57·0	— 4·1	70·5	30th	40·5	6th.
Uitenhage	H. Inggs	68·0	41·9	55·0	57·4	2·4	81·5	29th	32·5	25th.
Umtata	P. Hackitt	69·1	36·4	52·7	53·5	— 0·8	79·8	30th	27·2	6th.
Vryburg	Sergt. H. White	64·3	30·5	47·4	49·7	— 2·3	72·0	3rd	21·0	27th.
Wynberg (Convent)	The Mother Superior	61·7	46·7	54·2	56·2	— 2·0	79·5	30th	41·0	25th.
Basutoland—										
Mafeteng	F. Hodgson	54·3	32·3	43·3	48·0	— 4·7	62·0	3rd	24·0	14th.

N°101.



June, 1925. Prevailing Winds and Mean Barometric Pressure at 8.30 a.m.
The dotted lines indicate the normal distribution for June.

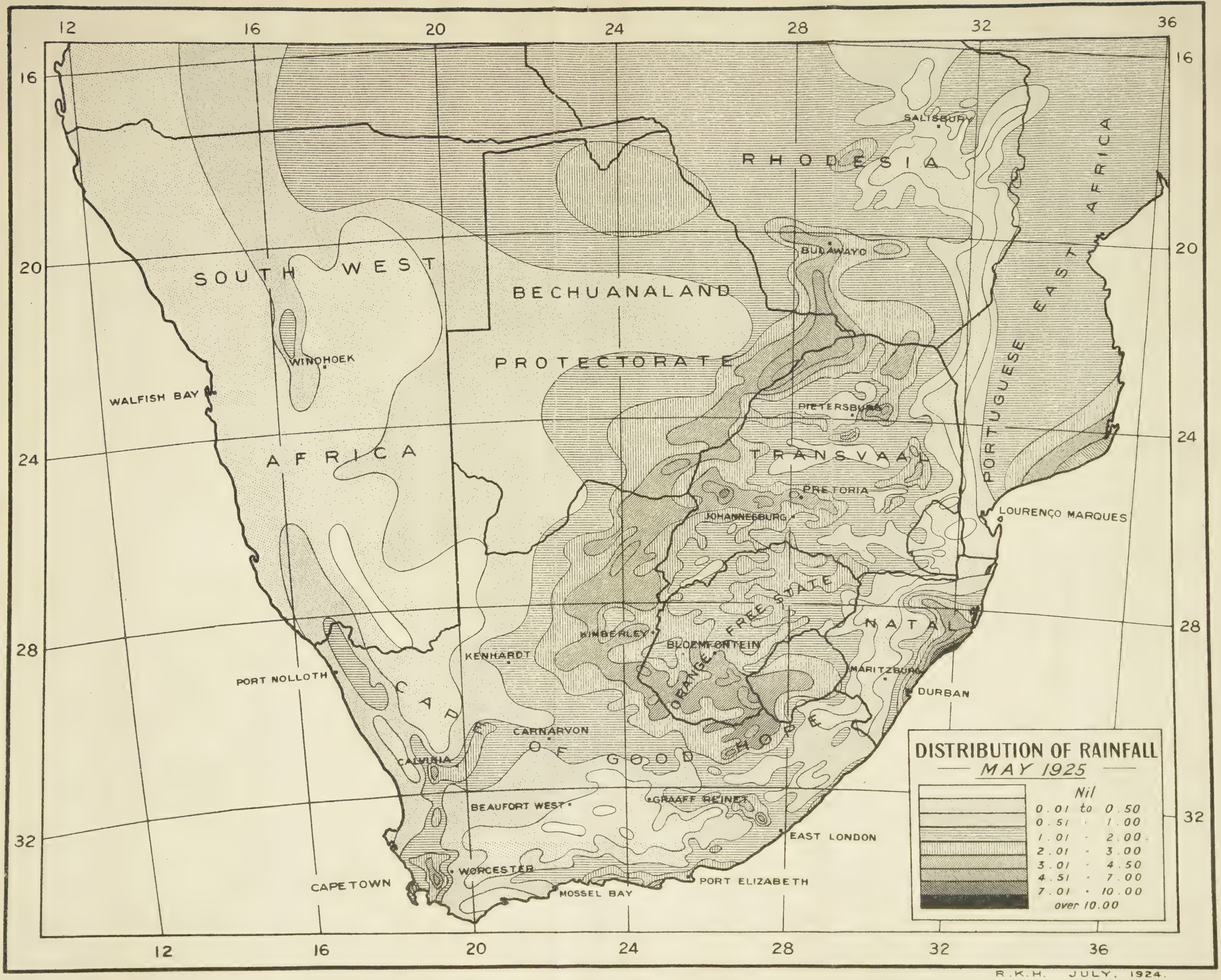


DISTRIBUTION OF RAINFALL

MAY 1925

R.K.H. JULY. 1924.

SOUTH AFRICA



R.K.H. JULY, 1924.

RAINFALL, JUNE, 1925.

Place.	Observer.	June, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Transvaal—										
Barberton	W. Grubb	0·45	0·22	+ 0·23	24·42	17·77	+ 6·65	42·61	31·79	+10·82
Belfast	The Forester	1·12	0·16	+ 0·96	22·70	16·52	+ 6·18	39·26	32·45	+ 6·81
Bethal	H. F. Joubert	1·08	0·07	+ 1·01	15·48	14·00	+ 1·48	32·53	29·61	+ 2·92
Bloemhof	Sergt. E. J. Jordaan	0·00	0·16	− 0·16	18·11	11·82	+ 6·29	29·46	18·36	+11·10
Claremont	S.A. Police	1·84	0·02	+ 1·82	13·47	10·75	+ 2·72	23·00	18·68	+ 4·32
Ermelo	The Forester	1·57	0·14	+ 1·43	15·04	14·55	+ 0·49	31·58	31·67	− 0·09
Haenertsburg	S.A. Police	0·55	0·29	+ 0·26	42·78	24·38	+18·40	61·70	38·37	+23·33
Heidelberg	W. ter Horst	0·09	0·06	+ 0·03	—	—	—	—	—	—
Johannesburg (Observatory)	The Staff	0·08	0·09	− 0·01	21·43	16·35	+ 5·08	35·09	30·73	+ 4·36
Joubert Park (Johannesburg	The Superintendent of Pks	0·09	0·13	− 0·04	24·92	18·48	+ 6·44	41·33	33·10	+ 8·23
Klerksdorp (Strathmore)	S. Scott	0·43	0·14	+ 0·29	18·44	13·48	+ 4·96	30·92	23·28	+ 7·64
Komatipoort	A. H. White	0·00	0·23	− 0·23	29·78	17·74	+12·04	48·28	27·65	+20·63
Louis Trichardt	C. L. Cope	0·00	0·46	− 0·46	38·36	18·19	+20·17	54·23	30·10	+24·13
Middelburg	J. B. Kotze	1·60	0·11	+ 1·49	—	—	—	—	—	—
Nylstroom	G. Bakker	0·55	0·19	+ 0·36	22·09	14·11	+ 7·98	33·59	24·87	+ 8·72
Pietersburg	B. Roos	0·26	0·04	+ 0·22	14·98	11·38	+ 3·60	25·87	21·28	+ 4·59
Piet Retief	J. Werner	0·47	0·13	+ 0·34	25·21	18·25	+ 6·96	50·60	36·29	+14·31
Pigeonhole (New Agatha)	J. McCallum	0·81	0·19	+ 0·62	56·93	28·85	+28·08	82·47	47·66	+34·81
Pilgrims Rest	E. M. Skea	0·60	0·32	+ 0·28	44·65	25·75	+18·90	62·24	40·09	+22·15
Potchefstroom (Experimental Farm)	The Manager	0·35	0·15	+ 0·20	20·73	12·66	+ 8·07	34·68	23·68	+11·00
Pretoria (Meteorological Office)	The Staff	0·02	0·07	− 0·05	24·02	15·92	+ 8·10	39·06	29·39	+ 9·67
Rooiberg	N. H. Monro	0·06	0·06	± 0·00	17·11	14·17	+ 2·94	28·00	24·83	+ 3·17
Rustenburg	H. J. Streatfield	0·12	0·09	+ 0·03	22·53	14·49	+ 8·04	36·07	26·44	+ 9·63
Standerton	The Magistrate	0·16	0·08	+ 0·08	—	—	—	—	—	—
Wakkerstroom	J. C. Aspden	0·59	0·13	+ 0·46	21·74	16·82	+ 4·92	38·08	32·22	+ 5·86
Woodbush I.	The Forester	0·70	0·44	+ 0·26	70·83	45·23	+25·60	104·15	71·31	+32·84
Zeerust	H. Dietrich	0·48	0·05	+ 0·43	22·99	14·17	+ 8·82	37·74	23·90	+13·84
Swaziland—										
Mbabane	Swaziland Police	0·66	0·44	+ 0·22	60·87	29·53	+31·34	100·62	53·04	+47·58
Orange Free State—										
Bethulie	J. J. Wardhaugh	0·19	0·50	− 0·31	21·86	11·41	+10·45	29·39	17·60	+11·79
Bloemfontein	G. A. Schepers	0·00	0·37	− 0·37	16·21	13·89	+ 2·32	26·29	21·68	+ 4·61
Boshof	E. W. Milton	0·00	0·23	− 0·23	14·87	12·09	+ 2·78	24·68	19·45	+ 5·23
Harrismith	The Forester	0·67	0·22	+ 0·45	23·32	15·52	+ 7·80	40·64	29·50	+11·14
Kroonstad	A. C. Mason	0·70	0·28	+ 0·42	16·36	14·31	+ 2·05	33·67	24·25	+ 9·42
Ladybrand	The Forester	0·15	0·31	− 0·16	24·38	15·28	+ 9·10	44·78	27·27	+17·51
Lindley	The Gaoler	0·40	0·23	+ 0·17	21·01	13·54	+ 7·47	—	24·20	—

RAINFALL, JUNE, 1925—(*continued*).

Place.	Observer.	June, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1924.	Normal.	Difference from Normal.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Natal—										
Dundee	W. Thorrold	0·23	0·17	+ 0·06	25·91	17·66	+ 8·25	45·11	32·09	+13·02
Durban (Point)	The Port Captain	0·47	1·18	− 0·71	33·99	20·79	+13·20	53·68	41·51	+12·17
Empangeni	The Forester	0·42	1·17	− 0·75	58·07	24·17	+33·90	84·57	46·01	+38·56
Estcourt	The Town Clerk	0·20	0·24	− 0·04	31·35	16·57	+14·78	52·82	28·91	+23·91
Hlabisa	E. E. Redgrove	0·33	0·68	− 0·35	68·52	22·82	+45·70	93·46	43·74	+49·72
Howick	The Gaoler	0·15	0·45	− 0·30	31·46	18·31	+13·15	48·08	33·34	+14·74
Ladysmith	D. A. R. Leathern	0·09	0·20	− 0·11	33·90	16·22	+17·68	54·20	28·47	+25·73
Maritzburg (Mental Hospital)	The Staff	0·03	0·35	− 0·32	33·51	20·01	+13·50	54·11	37·27	+16·84
Stanger	C. C. Foss	0·48	1·00	− 0·52	40·65	20·16	+20·49	64·85	42·66	+22·19
Vryheid	The Gaoler	0·60	0·22	+ 0·38	27·69	18·24	+ 9·45	31·49	35·01	− 3·52
Weenen	The Gaoler	0·00	0·21	− 0·21	19·42	15·24	+ 4·18	37·91	27·34	+10·57
Cape Province—										
Aliwal North	A. Alcock	0·28	0·56	− 0·28	26·24	12·60	+13·64	33·85	20·36	+13·49
Beaufort West	The Gaoler	0·61	0·36	+ 0·25	6·03	6·08	− 0·05	8·15	9·58	− 1·43
Bedford	T. C. Hall	0·92	0·98	− 0·06	14·73	15·57	− 0·84	22·74	26·58	− 3·84
Britstown	The Gaoler	0·56	0·43	+ 0·13	15·98	8·21	+ 7·77	19·56	11·45	+ 8·11
Calvinia	The Gaoler	4·63	1·06	+ 3·57	9·68	4·74	+ 4·94	12·82	8·23	+ 4·59
Capetown (Royal Observatory)	The Staff	9·33	4·45	+ 4·88	12·09	12·48	− 0·39	22·33	25·40	− 3·07
Ceres	The Gaoler	22·56	6·95	+15·61	25·80	18·68	+ 7·12	44·66	41·47	+ 3·19
Carnarvon	A. P. Malherbe	1·40	0·33	+ 1·07	12·14	5·65	+ 6·49	15·72	7·89	+ 7·83
Clanwilliam	The Gaoler	6·52	1·51	+ 5·01	8·69	4·33	+ 4·36	12·03	8·66	+ 3·37
Concordia	F. Carstens	5·22	0·86	+ 4·36	8·81	3·70	+ 5·11	10·99	6·40	+ 4·59
Driefontein (French Hoek)	The Forester	25·13	22·21	+ 2·92	37·29	38·80	− 1·51	76·08	77·28	− 1·20
East London	A. Downie	1·48	1·42	+ 0·06	22·45	16·49	+ 5·96	33·43	32·74	+ 0·69
Fraserburg	The Gaoler	1·84	0·38	+ 1·46	6·68	4·71	+ 1·97	8·08	6·71	+ 1·37
Grahamstown	Vet. Res. Officer	1·42	1·37	+ 0·05	12·84	14·23	− 1·39	20·72	28·03	− 7·31
Garies	The Gaoler	3·02	0·85	+ 2·17	4·17	2·47	+ 1·70	6·93	4·98	+ 1·95
Graaff-Reinet (Convent)	The Mother Superior	0·20	0·55	− 0·35	8·95	8·18	+ 0·77	12·75	13·85	− 1·10
Groot Drakenstein	A. L. Franceys	12·64	6·28	+ 6·36	17·94	17·01	+ 0·93	36·52	35·59	+ 0·93
Griquatown	The Gaoler	0·00	0·40	− 0·40	15·89	9·21	+ 6·68	23·60	12·90	+10·70
George	Rev. Canon B. Price	2·66	2·15	+ 0·51	15·65	17·66	− 2·01	34·16	34·12	+ 0·04
Hanover	The Gaoler	0·47	0·48	− 0·01	12·93	9·13	+ 3·80	16·29	13·20	+ 3·09
Hopetown	The Gaoler	—	0·36	—	—	8·80	—	—	12·56	—
Kenhardt	R. Seydell	0·24	0·25	− 0·01	5·39	4·23	+ 1·16	8·00	5·76	+ 2·24
Kimberley	C. H. Dowler	0·00	0·28	− 0·28	16·14	10·32	+ 5·82	25·36	16·05	+ 9·31
Knysna	The Gaoler	4·28	2·14	+ 2·14	11·51	13·66	− 2·15	26·01	28·57	− 2·56
Kokstad	H. D. Coyte	0·00	0·47	− 0·47	21·39	15·39	+ 6·00	40·33	27·04	+13·29
Kingwilliamstown	W. Kindness	0·91	0·88	+ 0·03	17·79	13·43	+ 4·36	26·51	25·09	+ 1·42
Kuruman	Res. Magistrate	0·01	0·22	− 0·21	20·69	11·94	+ 8·75	—	16·87	—

RAINFALL, JUNE, 1925—(*continued*).

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		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Cape Province (continued)—										
Mafeking (Convent)............	The Mother Superior....	0·54	0·04	+ 0·50	19·33	13·34	+ 5·99	31·12	22·60	+ 8·52
Mossel Bay (Cape St. Blaize)..	The Lightkeeper........	3·23	1·26	+ 1·97	8·15	8·71	− 0·56	14·30	17·20	− 2·90
Murraysburg..................	W. Rose Innes..........	—	0·42	—	—	7·32	—	—	10·89	—
O'okiep.......................	H. T. Wyles...........	4·94	1·04	+ 3·90	7·70	3·67	+ 4·03	8·88	6·97	+ 1·91
Philipstown...................	The Gaoler............	0·34	0·46	− 0·12	19·84	9·29	+10·55	24·62	13·45	+11·17
Piquetberg....................	The Gaoler............	10·15	3·15	+ 7·00	12·55	9·41	+ 3·14	27·21	20·84	+ 6·37
Port Elizabeth................	The Lightkeeper........	2·70	1·67	+ 1·03	8·88	10·25	− 1·37	17·90	22·37	− 4·47
Port St. Johns................	The Lightkeeper........	0·53	1·92	− 1·39	28·69	25·04	+ 3·65	49·13	50·01	− 0·88
Port Nolloth..................	The Lightkeeper........	1·90	0·34	+ 1·56	3·29	1·28	+ 2·01	4·20	2·36	+ 1·84
Prieska.......................	The Gaoler............	0·32	0·26	+ 0·06	14·38	7·23	+ 7·15	17·92	9·65	+ 8·27
Queenstown....................	H. Holley.............	0·54	0·60	− 0·06	16·52	13·97	+ 2·55	25·91	22·81	+ 3·10
Steytlerville.................	The Gaoler............	0·54	0·37	+ 0·17	4·25	5·59	− 1·34	6·63	9·31	− 2·68
Sutherland....................	The Gaoler............	5·24	1·06	+ 4·18	11·50	5·41	+ 6·09	—	9·38	—
Swellendam....................	The Gaoler............	2·80	2·18	+ 0·62	15·94	16·25	− 0·31	30·29	31·85	− 1·56
Sydney's Hope.................	Rev. S. Rippon........	2·22	1·19	+ 1·03	13·22	11·65	+ 1·57	23·61	22·57	+ 1·04
Somerset East.................	C. Harris.............	0·89	0·99	− 0·10	11·66	14·26	− 2·60	18·99	25·47	− 6·48
Stutterheim...................	F. C. Bousfield.........	0·43	0·85	− 0·42	22·03	16·62	+ 5·41	31·82	29·83	+ 1·99
Uitenhage.....................	H. Inggs..............	2·27	1·02	+ 1·25	8·92	8·80	+ 0·12	15·87	17·24	− 1·37
Umtata........................	B. J. Hackett..........	0·03	0·96	− 0·93	18·29	14·46	+ 3·83	28·80	25·44	+ 3·36
Uniondale.....................	The Gaoler............	1·68	1·10	+ 0·58	5·19	6·93	− 1·74	11·44	13·31	− 1·87
Upington......................	The Gaoler............	0·00	0·09	− 0·09	10·90	5·21	+ 5·69	13·03	7·18	+ 5·85
Victoria West.................	The Gaoler............	0·92	0·38	+ 0·54	8·43	7·23	+ 1·20	12·26	10·41	+ 1·85
Vryburg.......................	Sergt. H. White........	0·00	0·23	− 0·23	19·94	13·23	+ 6·71	28·47	19·13	+ 9·34
Worcester.....................	The Gaoler............	7·79	1·94	+ 5·85	9·01	5·87	+ 3·14	12·87	12·53	+ 0·34
Wynberg (Convent)............	The Mother Superior....	15·88	8·38	+ 7·50	21·53	20·32	+ 1·21	42·62	46·16	− 3·54
Basutoland—										
Mafeteng......................	F. Hodgson............	1·64	0·72	+ 0·92	31·21	19·36	+11·85	45·76	31·69	+14·07
South-West Africa—										
Aroab.........................	S.W.A. Police..........	0·00	0·12	− 0·12	10·47	6·22	+ 4·25	11·13	7·76	+ 3·37
Aus...........................	E. Martins............	3·19	0·59	+ 2·60	8·14	2·76	+ 5·38	9·01	4·06	+ 4·95
Bethanie......................	Rev. Peter............	0·00	0·04	− 0·04	8·19	2·63	+ 5·56	9·71	3·30	+ 6·41
Duestenbrock..................	R. Matthiesse..........	0·00	0·00	± 0·00	15·24	11·03	+ 4·21	17·03	13·27	+ 3·76
Gabis.........................	Rev. P. Rehor.........	—	0·10	—	—	2·99	—	—	4·31	—
Garinais......................	F. Bentling...........	0·00	0·05	− 0·05	9·95	4·44	+ 5·51	11·15	6·03	+ 5·12
Gibeon........................	The Postmaster........	0·00	0·04	− 0·04	10·52	4·95	+ 5·57	11·11	6·13	+ 4·98
Gobabis.......................	Rev. Irle.............	0·00	0·06	− 0·06	16·28	11·97	+ 4·31	19·49	15·77	+ 3·72
Grootfontein..................	Pitkowski.............	0·00	0·08	− 0·08	27·13	17·19	+ 9·94	34·77	23·76	+11·01
Gr. Witvley...................	G. Maas...............	0·00	0·08	− 0·08	17·55	11·12	+ 6·43	21·35	14·78	+ 6·57

RAINFALL, JUNE, 1925—(*continued*).

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		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
South-West Africa (continued)—										
Haribes	G. Freund	0·00	0·00	± 0·00	8·23	6·72	+ 1·81	8·91	8·04	+ 0·87
Hierachabis	Rev. P. Stroka	0·00	0·06	— 0·06	3·09	3·03	+ 0·06	3·49	3·94	— 0·54
Kalkfontein S.	S.W.A. Police	0·08	0·28	— 0·20	8·18	3·63	+ 4·55	9·09	4·21	+ 4·88
Franzfontein	H. Janson	0·00	0·01	— 0·01	15·09	7·87	+ 8·22	15·61	10·08	— 5·53
Luderitz Bay	E. Stoeber	0·36	0·19	+ 0·17	0·75	0·41	+ 0·34	0·76	0·67	+ 0·09
Maltahoehe	E. Just	0·00	0·01	— 0·01	8·43	5·33	+ 3·10	8·72	6·26	+ 2·46
Neu Heusis	Liebigs Extract Co.	0·00	0·03	— 0·03	19·20	10·96	+ 8·24	19·87	13·62	+ 6·25
Okahandja	B. Templing	0·00	0·02	— 0·02	21·07	11·05	+10·02	24·94	14·13	+10·81
Okasanguningo	R. H. A. Schneider	0·00	0·00	± 0·00	19·30	12·43	+ 6·87	23·18	17·66	+ 5·52
Omaruru	The Postmaster	0·00	0·04	— 0·04	18·08	12·86	+ 5·22	17·79	15·31	+ 2·48
Otjiwarongo	The Magistrate	0·00	0·13	— 0·13	16·13	12·22	+ 3·91	16·35	16·14	+ 0·12
Outjo	The Magistrate	0·00	0·02	— 0·02	21·68	11·67	+10·01	25·65	15·39	+10·26
Rehoboth	The Postmaster	0·00	0·04	— 0·04	8·12	9·41	— 1·29	8·61	11·96	— 3·35
Rietfontein	B. Leist	0·00	0·01	— 0·01	32·03	14·31	+17·72	36·56	20·14	+16·42
Swakopmund	The Gaoler	0·00	0·01	— 0·01	0·69	0·37	+ 0·32	0·79	0·66	+ 0·13
Tsumeb	Ing. Schetter	0·00	0·03	— 0·03	28·16	16·76	+11·40	37·38	23·67	+14·71
Usakos	Rev. Diehl	0·00	0·01	— 0·01	12·41	4·24	+ 8·17	13·30	5·22	+ 8·08
Voigtsgrund	A. Voigts	0·00	0·07	— 0·07	17·68	6·10	+11·58	20·22	7·32	+12·90
Warmbad	E. Luchtenstein	0·15	0·16	— 0·01	3·59	2·78	+ 0·81	4·33	3·48	+ 0·85
Waterberg	D. Hahn	0·00	0·05	— 0·05	22·19	14·74	+ 7·45	26·89	19·77	+ 7·12
Wilhelmstal	W. Boehmker	0·00	0·04	— 0·04	17·90	9·82	+ 8·08	19·62	12·44	+ 7·18
Windhoek	Observatory	0·00	0·02	— 0·02	20·20	11·52	+ 8·68	22·82	14·75	+ 8·07

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UNION OF SOUTH AFRICA.

DEPARTMENT OF IRRIGATION.

MONTHLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE.

Vol. VI. **JULY, 1925.** **No. 67.**

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UNIVERSITY OF ILLINOIS

MEAN atmospheric pressure practically normal over the Union, except in the west and south where it was slightly higher than usual; distribution mainly anticyclonic, with low-pressure areas over the south-west and south on only five days: mean temperature slightly more than 1 degree lower than usual, due entirely to the days being 2½ degrees cooler than the average and nights practically normal; weather mild and equable on the whole, with frequent, comparatively light, frosts at night, much less intense than during the corresponding month of the previous year: sporadic showers over the interior, with many "nil" areas in the Transvaal, the north and south of the Orange Free State, Bechuanaland, and the northern border of the Cape Province: an excess of rainfall over the greater part of the plateau, the south-west, and portions of the south-east of the Cape Province, as well as over the whole of Natal, the south of the Orange Free State, and isolated parts of the north-east, centre, and south-east of the Transvaal; a few windy days; these were the principal features of the weather of July, 1925.

Pressure.—The distribution of mean barometric pressure during July was almost the same as the normal, the main differences being a slight decrease over the Transvaal, while the west and south coasts showed an increase of about half a tenth of an inch over the average.

On the 1st, the Union was under the influence of an anticyclone, having its highest isobar (30·40 inches) over the Orange Free State and the greater part of the Transvaal, and the lowest isobar (30·10 inches) off the south-west coast; no rain had fallen during the preceding twenty-four hours; northerly to north-easterly winds in the south-west seemed to indicate an approaching low-pressure area; on the 2nd, the anticyclone persisted, but, owing to a fall of about a tenth of an inch in the east, the isobar of 30·30 inches was open on its eastern side; a fall of between one-tenth and two-tenths of an inch had taken place along the south coast, and of about half a tenth of an inch on the west coast; the lowest isobar of 30·00 inches lay over the western half of the south coast; moderate northerly breezes were prevalent all along the south coast; no rain; on the 3rd, a further fall of about two-tenths of an inch had taken place along the east coast, of one-tenth of an inch over the south-east, but it had remained practically steady in the south-west, whilst a slight rise had taken place in the west, so that anticyclonic conditions still prevailed; some rain had fallen over the south-west corner, and strong west breezes were blowing there; slight westerly breezes were felt along the south coast, but fresh to strong north-westerly winds over the south-east interior and coast: on the 4th, a rise of about one-tenth of an inch had occurred over the south-west, of about half this amount in the west and south, whilst a slight fall of a similar amount had taken place in the east, so that pressure was highest (30·30 inches) in the west and lowest (30·00 inches) on the Natal coast; westerly winds of force 5–7 continued in the south and south-west, and lighter north-westerly breezes in the south east; rain had continued to fall over the south-west corner of the Union, and had occurred at a few places on the south coast; on the 5th, an increase of two-tenths of an inch had occurred in the south and south-west, of about one-tenth of an inch in the east and west of the Union, whilst a fall of about one-tenth of an inch had occurred in the north of South-West Africa and Rhodesia; so that pressure was now highest (30·35 inches) in the west of the Cape Province, low (30·10 inches) in Portuguese East Africa, but least in South-West Africa, where a " low " had formed on the coast; strong westerly to north-westerly winds were blowing along the south and east coasts; rain had extended into Namaqualand, parts of the central Karroo, and the north-east, as well as the north of South-West Africa; fresh to strong westerly to north-westerly winds continued along the coasts; on the 6th, the country was crossed from west to east by isobars, the highest (30·40 inches) being along the south coast, and decreasing northwards to 30·00 inches in the latitude of Walvis Bay; showers had occurred in Natal, Swaziland, the south of Portuguese East Africa, and one or two places on the south coast; on the 7th, pressure had risen in the east and south by about one-tenth of an inch, but had fallen a few hundredths of an inch in the south-west and west of the Cape Province and the southern half of South-West Africa, but risen by a similar amount at Walvis Bay, the shape of the isobars indicating the presence of a V-depression in Angola, consequently pressure was highest (30·50 inches) in the east over the south of the Transvaal, the centre and east of the Orange Free State, and the south-east of the Cape Province; rain was confined to the north of the Transvaal and the coast of Portuguese East Africa; on the 8th, pressure had fallen between one-tenth and two-tenths of an inch all along the west coast of South-West Africa and the Cape Province, as well as the south-west, south, and south-east coasts, but had remained steady in the east; there were decided indications of a " low " over South-West Africa and Angola, where pressure was least (29·90 inches); rain had fallen over the northern half of South-West Africa and portions of Southern Rhodesia and Portuguese East Africa; on the 9th, pressure had fallen generally all over the Union, by amounts varying from a few hundredths of an inch in South-West Africa to two-tenths of an inch in the south-west Cape, then decreasing along the south and east coasts to about one-tenth of an inch at Durban and half this amount at Lourenco Marques; pressure was highest (30·45 inches) over the south-east Transvaal, the north-east of the Orange Free State, and Zululand, and least (29·88 inches) at Mossamedes, in Angola; rain had fallen in South-West Africa, Southern Rhodesia, the southern half of Portuguese East Africa, and parts of the east and north of the Transvaal; strong north-easterly winds over portions of Namaqualand and Clanwilliam indicated an approaching " low "; on the morning of the 10th, a " low " was seen to be affecting the west coast, the south-west, and part of the south coast; the barometer had fallen about two-tenths of an inch in the south-west and along the south-east coasts, so that pressure was least (29·85 inches) in the south-west and still highest (30·35 inches) over the eastern half of the Transvaal, Orange Free State, and Portuguese East Africa; rain had fallen in the south-east, east, and north of the Transvaal, also on the coast of Portuguese East Africa; by the morning of the 11th, pressure had fallen a tenth of an inch in the north-east of the Union, but had risen by one-tenth to one and a half tenth of an inch in the west and south-west; a slight decrease in pressure had also occurred on the South-West African coast, so that a comparatively moderate anticyclone covered the whole Union; rain had fallen over the south-west and part of the south and central Karroos; on the 12th, a further slight decrease in pressure had occurred over the Orange Free State, Transvaal, and Portuguese East Africa, where lay the highest isobar of 30·20 inches; pressure had increased by half-a-tenth of an inch in the south-west, but had decreased over the interior of South-West Africa and the north-west of the Cape Province, in which area lay the outer isobar of a V-depression, while a complementary inverted V-depression evidently lay off the south coast, where a gap existed between two 30-inch isobars belonging evidently to two separate anticyclones, one in the east and the other off the west coast; rain had fallen in the south-west, the west of the south coast area, and southern and central Karroos, and had penetrated inland to the south-east of the northern Karroo, the north-east section of the Cape, and south of the Orange Free State; on the 13th, the V-depression had deepened considerably over South-West Africa and the north of the Cape, the barometer having fallen a tenth of an inch there; the complementary depression had also definitely appeared over the south coast, pressure being least (29·90 inches) there at Mossel Bay; pressure had risen slightly on the east coast, but was practically steady in the west, off which coast lay an anticyclone complementary to that in the east; rain had fallen over the south-west, part of the south coast, the south-east, Kaffraria, north-east, the east of the Karroos, and the south of the Orange Free State; on the 14th, the southern "low" had moved to the north-east, and was affecting the greater part of the Cape, south of the Orange Free State, Natal, almost to Lourenco Marques; pressure was lowest (29·80 inches) on the south-east and east coasts, the eastern "high" had retreated to the north-east, losing one or two isobars; the front of the western anticyclone had advanced eastwards and now lay along the coast, while the northern interior "low" had retreated northwards; rain had fallen over practically the whole of the Cape Province and the west and south of the Orange Free State; on the 15th, the coastal "low" had passed off to eastward and the western "high" had advanced on the land, with isobars of 30·05 inches along the east coast and 30·30 inches in the west; the interior "low" had retreated northwards; strong winds continued to blow along the south and south-east coasts, also over the eastern interior of the Cape Province: rain had again fallen over practically the same area as on the previous morning, and had extended northwards into the southern portions of Natal; on the 16th, the western "high" had advanced further eastwards, so that the Union was under the influence of the front portion of the anticyclone, with an isobar of 30·35 inches along the northern borders of the Cape Province, the centre of the Transvaal, the south of Portuguese East Africa, and the east and south-east coasts, and an isobar of 30·50 inches off the west coast; gentle to strong westerly breezes were still prevalent along the coasts; some showers over the Cape Peninsula and along the south coast; on the 17th, the northern portion of the anticyclone covered the whole of the map, with gradients from south to north, the highest isobar of 30·50 inches extending along the south coast and lowest isobar (30·10 inches) crossing the centre of South-West Africa; showers had occurred over the south-west Cape and the eastern portion of the south coast; on the 18th, an additional isobar (30·60 inches) of the anticyclone was lying along the south-east coast, and the gradients were from south-east to north-west; the run of the isobars had been changed from the east and west directions of the previous morning to a north-east and south-west slope, as the result of a fall in the barometer on the South-West African coast, where an isobar of 29·95 inches, south of Walvis Bay, indicated the formation of a "low"; moderate to high easterly winds were blowing over the western half of the Cape Province, with strong south-east breezes over the adjacent ocean; coastal showers had occurred between Port Elizabeth and Port Shepstone; while rain had fallen over the south, south-west, north, and east of the Transvaal; on the 19th, the highest isobar of the anticyclone (30·50 inches) lay in the east, a short distance from the coast between Lourenco Marques and East London; the isobars had assumed a more northerly slope, decreasing westwards in value to 29·90 inches on the coast of South-West Africa; strong easterly winds were blowing in the western portions of the Cape Province; rain had fallen over the central portions and part of the south-west coast of South-West Africa, extending into Namaqualand and the neighbourhood of the Orange River, where precipitation occurred in connexion with thunderstorms; also over the middle parts of the south of the Transvaal, along the Kaffrarian and Natal coasts, into Zululand; on the 20th, the head of an inverted V-depression had made its appearance over the south-west of the Cape Province, with a lowest isobar of 29·90 inches: the central portion of the eastern "high" lost a few isobars and was now only 30·35 inches, lying between Durban and some distance north of Lourenco Marques, and extending inland over the north-east of the Orange Free State, the south and east of the Transvaal; rain had again fallen over South-West Africa, Namaqualand, the western portions of the northern border, and the western half of the Cape Province generally; on the 21st, the south-western "low" had disappeared; the eastern "high" had moved a short distance to the north-east, having now 30·20 inches as the value of its highest isobar; the western "high" had advanced on to the land, so that the centre of the Union was under the "col" between these two anticyclones; rain had occurred over the north and centre, south-west, and south of the Cape Province—but not over Namaqualand or the Transkei—also in the south of the Free State; on the 22nd, the whole of the Union was under the influence of the rear of an anticyclone, with its highest barometer over Natal, the Orange Free State, south of the Transvaal, and Kaffraria; the isobars decreased to 30·20 inches over the west of the Union, and still further to 30·10 inches over the centre of South-West Africa; some showers had fallen over the Cape Peninsula and the south-west Cape, also over the south-east of the Orange Free State, Basutoland, the west and south-west of the Transvaal, and Bechuanaland; on the 23rd, the northern extremity of a depression had appeared in the south, with the lowest pressure (29·90 inches) lying between Mossel Bay and Cape Agulhas; while portions of anticyclones lay over the north-east and north-west of the Union, the highest barometric readings in the east being 30·30 inches over the Transvaal, and in the west 30·15 inches over Namaqualand; rain was confined to the Cape Peninsula and a small portion of the south-west Cape, and the neighbourhood of Hlabisa, in Zululand; on the 24th, the distribution of pressure was practically the same as on the previous morning, except for a slight rise in the south-west and a decrease in the eastern anticyclone of about one-tenth of an inch; moderate to strong northerly and westerly winds prevailed over the major part of the Cape Province, the east of the Transvaal, south and east of the Orange Free State, etc.; rain had fallen in the west and south-west of the Cape, the central and southern Karroos, and the south coast; on the 25th, the southern low pressure had passed to eastward, leaving the country covered by the forepart of the western anticyclone, with pressure varying from 30·05 inches between Durban and Lourenco Marques to 30·30 inches near Port Nolloth; rain had fallen again in the west and south-west Cape, at a few stations in the northern border, northern Karroo, the south and south-east coasts, the

Transkei, as well as the south of the Orange Free State; on the 26th, a further general increase of pressure had taken place, and the Union lay under the rear of an anticyclone, with general gentle northerly breezes over the interior and westerly along the coasts; the highest isobar was 30·30 inches over part of Kaffraria, Natal, the east of the Orange Free State, the south-east of the Transvaal, and Zululand; the lowest isobar of 30·10 inches lay over the north of South-West Africa and Southern Rhodesia; showers had fallen in the south-west of the Cape Province, the Transkei, Natal, Zululand, the north and east of the Orange Free State, the south-east of the Transvaal, Swaziland, and the extreme south of Portuguese East Africa; on the 27th, the anticyclone had moved to the east-north-east; a decrease in pressure had occurred generally, amounting to between one and a half tenth and two-tenths on the south and east coasts and to about half these amounts on the west; the area of highest pressure (30·25 inches) comprised the greater part of the Transvaal, Orange Free State, and the south of Portuguese East Africa, while the lowest isobar of 30·00 inches lay over the middle portions of the south coast; the only rain reported was at Hlabisa, in Zululand; on the 28th, a remarkable change had taken place; a rise of about four-tenths of an inch had occurred in the south and south-west, with general smaller increases in pressure over the rest of the map, so that the whole country appeared to be under the north-west portion of an anticyclone following in the rear of the "low" indicated on the chart of the preceding day, while the anticyclone which lay over the country on the preceding day had moved off at an unusually rapid rate · the highest pressure (30·35 inches) was found along the south coast and the lowest (30·15 inches) in South-West Africa and Rhodesia, the general run of the isobars being in a north-east to south-west direction, assuming a wedge-shape over the north-east of the Union; rain had fallen over the south-west Cape, along the south coast, and over portions of the southern and central Karroos; on the 29th, the site of the highest pressure (30·55 inches) had been transferred from the south to the east coast between Port Shepstone and Lourenco Marques, the barometer having risen thereby three-tenths of an inch, while it had fallen slightly over two-tenths of an inch in the south-west, being 30·15 inches in the south-west; a few showers had fallen along the Natal coast and in Zululand; there were indications of a "low" to the north of Angola; on the 30th, a high-pressure ridge lay across the country in a general east-north-east to west-south-west direction, with pressure decreasing to both north and south; moderate north-westerly to westerly winds were general over practically the whole of the Union, rising to gale force in portions of the eastern Cape: rain had fallen locally at a few places in the south-west of the Cape Province; on the 31st, the high-pressure ridge of the previous day had disappeared and was replaced by the continuous curved isobars of the rear of an anticyclone: pressure was highest (30·45 inches) over the Transvaal, Orange Free State, Natal, and Portuguese East Africa, and lowest (30·25 inches) over Rhodesia, Bechuanaland, the south-east of South-West Africa, and the west coast of the Union; no rain had occurred during the preceding twenty-four hours.

Temperature.—The mean temperature during July (52·0 degrees) was 1·2 degree less than usual, the deficit being due to the mean day temperature (65·4 degrees) being 2·4 degrees lower than the average, while the mean night temperature (38·7 degrees) was only 0·1 degree higher than the normal. The mean temperature for this month was below normal in all the Provinces; thus the Cape Province, with a mean of 53·2 degrees, was 0·8 degree cooler than usual, while the Transvaal, with 50·6 degrees, was subnormal by 0·9 degree; the mean of 45·4 degrees for the Orange Free State was 1·6 degree under the average, and Natal, with 55·9 degrees, showed a shortage of 2·4 degrees. The mean maximum for each Province was also lower than usual; the Transvaal, with 66·2 degrees, being 1·4 degree, the Orange Free State, with 60·3 degrees, being 2·3 degrees, Natal, with 68·8 degrees, being 4·9 degrees, and the Cape Province, with 64·8 degrees, being 2·3 degrees lower than the corresponding normals. The mean minimum values showed greater diversity in relation to the corresponding averages for the respective Provinces; thus the Transvaal, with 35·1 degrees, and the Orange Free State, with 30·5 degrees, were 0·3 degree and 0·9 degree respectively cooler than usual; whereas the mean minimum of 43·0 degrees for Natal was the same as usual, but the mean minimum of 41·7 degrees in the Cape Province was 0·8 degree higher than the average. Considering the stations separately, it is seen that the mean temperature for July was mostly below normal generally by 1 degree to 2 degrees, except in portion of the east, south, centre, and west of the Transvaal, a few coast stations in the Cape Province, and parts of the central Karroo and the west coast area, where small excesses usually of less than 1 degree were met with. In the Transvaal, the deficits in the temperature of the month varied between 0·3 degree at Pietersburg and Nylstroom and 2·7 degrees at Klerksdorp, while the excesses lay between 0·1 degree at Barberton and 0·6 degree at Pretoria. In the Orange Free State, the subnormal amounts ranged from 0·9 degree at Bethulie to 2·5 degrees at Lindley; in Natal, between 0·2 degree at Stanger and 4·3 degrees at Hlabisa; and in the Cape Province, from 0·3 degree at Groot Drakenstein to 3·1 degrees at Bedford. In the last-mentioned Province excesses occurred varying from 0·3 degree at Vryburg to 2·1 degrees at Graaff-Reinet. The mean maxima were mostly under the average in the Transvaal by quantities ranging from 0·1 degree at Belfast to 5·4 degrees at Ermelo, although small excesses of less than half a degree were met with in portions of the east and centre. In the Orange Free State and Natal, subnormal values of the day temperatures were general, varying between 1·0 degree at Bloemfontein and Kroonstad and 5·7 degrees at Harrismith in the former Province, and between 3·5 degrees at Dundee and 7·0 degrees at Hlabisa over the latter Province. In the Cape Province, the day temperatures were subnormal, mostly by amounts between 1 degree and 4 degrees, but ranging from 0·1 degree at the Royal Observatory, Capetown, to 4·5 degrees at Kingwilliamstown. Kimberley is the only one of the selected typical stations showing a small excess, viz., 0·3 degree. The mean minima in the Transvaal were mostly below the average, except mainly in portions of the southern half of the Province, principally parts of the middle, east, south-east, west, and south-west. The deficits ranged from 0·2 degree at Pilgrims Rest to 3·0 degrees at Belfast, and the surplus amounts from 0·4 degree at Pietersburg to 1·9 degree at Middelburg. In the Free State, the mean night temperatures were mostly subnormal by amounts between 0·6 degree at Bethulie and 2·3 degrees at Lindley, whereas Harrismith showed an excess of 2·1 degrees. In Natal, the shortages in the mean minima lay between 0·3 degree at Empangeni and 3·8 degrees at Dundee, while excesses occurred across the middle of the Province, varying from 1·4 degree at Durban and Ladysmith to 2·0 degrees at Stanger. The number of stations showing an excess of mean minimum temperature was larger than the number showing a deficit. Supranormal values occurred in parts of Bechuanaland, of the northern border, of the east-central Karroo, of the north-east and south-east, of the south-west and west, as well as at most of the coast stations. These varied in amount from 0·2 degree at East London to 3·5 degrees at Clanwilliam, while the deficits ranged from 0·1 degree at Sydney's Hope to 3·3 degrees at Grahamstown. The mean warmest station was Durban, with a temperature for the month of 62·9 degrees, and the mean coolest was Belfast with 43·2 degrees, a difference of 19·7 degrees. The highest mean maximum (79·3 degrees) occurred at Komatipoort, and the lowest mean minimum (43·2 degrees) at

Belfast, showing a mean daily range of 36·1 degrees over the Union. The warmest periods of the month were 1st, 3rd, 8th to 15th, 24th, 25th, and 28th to 31st, extreme maxima being registered most widely over the Transvaal on the 11th, over the Orange Free State on the 4th, in Natal on the 12th and 13th, and over the Cape Province on the 1st and 31st. The coldest periods were from 1st to 8th, 15th to 17th, 20th, 21st, and 23rd to 27th, extreme minima over the Transvaal being registered mainly on 1st, 2nd, and 6th, over the Free State on the 6th, in Natal on the 3rd, and over the Cape Province on the 6th and 7th. The mean of the highest temperatures for the month over the Union was 76·0 degrees, and of the lowest 34·0 degrees, showing a mean monthly range over the Union of 42·0 degrees. The extreme maximum for the month was 89·0 degrees on the 12th and 13th at Komatipoort, also at Stanger on the 12th and 14th; and the extreme minimum, 17·0 degrees at Belfast on the 1st. There was, therefore, an extreme monthly range of 72·0 degrees over the country during July. Over the Transvaal, the mean values of the highest and lowest readings were 75·3 degrees and 26·1 degrees respectively, yielding a mean range during the month of 49·2 degrees. The extremes for this Province were those mentioned as the extremes over the Union. The corresponding values for the Orange Free State were 68·6 degrees and 20·6 degrees, a mean range of 48·0 degrees, while the highest reading was 72·1 degrees on the 12th at Kroonstad, and the lowest, 18·0 degrees on the 17th at Lindley, an extreme range of 54·1 degrees for July. In Natal, the mean value of the highest readings was 80·3 degrees, and of the lowest, 35·2 degrees, giving a mean monthly range of 45·1 degrees; the highest reading in this Province was 89·0 degrees at Stanger on the 12th and 14th, and the lowest, 25·0 degrees at Estcourt on the 3rd and 20th, an extreme range of 64·0 degrees for the month. In the Cape Province, the mean of the highest temperatures was 76·7 degrees, and of the lowest, 31·6 degrees, yielding a mean monthly range of 45·1 degrees; the actual highest reading was 83·0 degrees at Port Nolloth on the 9th and at East London on the 10th, and the lowest, 19·5 degrees at Aliwal North on the 6th, an extreme range for the month of 63·5 degrees. *Ground frosts*, although of daily occurrence in some areas, particularly in low-lying places, were generally less frequent and less severe than usual; shade temperatures below freezing-point were registered at the majority of stations.

Precipitation.—Rainfall during July was general over the Cape Province, with the exception of the greater part of Bechuanaland and a small portion of the northern border, and one or two small areas in Kaffraria. Light rains of half an inch occurred over parts of the south-eastern half of the Orange Free State, but there was a total absence of precipitation over the north-western half, as well as over parts of the north-east and of the south. In the Transvaal, light showers were confined mainly to the eastern third of the Province, with an offshoot to the west along the 24th degree of latitude almost to the western border, while an isolated patch of light rain covered portion of the middle, south, and west. In Natal, the rainfall was least, half an inch or less, in the west of the Province, but increased eastwards to between 2 and 3 inches over a moderately large area lying to the north of Durban and extending into Zululand to within a short distance of its northern border; larger amounts of between 4½ and 7 inches occurred on the coast north of Durban. The distribution over the Cape Province was of the purely winter type, increasing from half an inch or less in the north and east to between 1 inch and 2 inches over the west, south, and south-east coasts, to over 10 inches in a small portion of the south-west. The rains this month affected a much larger portion of South-West Africa than usual, viz., the whole of the southern half and the central and eastern portions of the northern half, they were commonly between a quarter and half an inch greater than the average, although Aus showed the unusually large excess of 2·34 inches. The north-west, a small portion in the north, and the north-east corner were apparently not affected by the showers of this month.

Compared with the normal, this month's totals were higher than usual over the larger portion of the Cape Province, the exceptional areas being the south coast and the southern Karroo, and portion of the south-east, parts of the north-east and the more inland portions of the Transkei, the northern border, and Bechuanaland; practically the whole of the Orange Free State, except the extreme south-west; the greater part of the Transvaal, where an excess precipitation occurred over the north-east, part of the east, of the south-east, and of the centre of the high veld. The representative stations in the Cape Province show a mean rainfall of 1·65 inch, which is 0·29 inch or 21 per cent. in excess of the normal; the subnormal areas situated mainly in the south, north-east, and east had a mean of 0·78 inch, being 0·44 inch or 36 per cent. less than usual; while the supranormal areas had a mean of 2·23 inches, which amount is 0·77 inch or 53 per cent. higher than usual. In the Orange Free State, the mean was 0·12 inch, being 0·23 inch or 66 per cent. lower than usual; the areas affected by *minus* quantities showed a mean of only 0·07 inch, which is 0·28 inch or 80 per cent. less than usual, whereas the excess of 0·05 inch in the south was only 14 per cent. higher than usual. In Natal, the mean was 1·57 inch, which is 0·89 inch or 131 per cent. above the average. The mean precipitation over the Transvaal was 0·28 inch, which is 0·08 inch or 22 per cent. under the normal; the subnormal areas, which consisted of the greater part of the Province, had a mean of only 0·10 inch, which is 0·22 inch or 69 per cent. less than usual; and the much smaller areas showing a surplus had a mean of 0·81 inch or 72 per cent. above the average. In South-West Africa, where but little rain occurs, if at all, during the month of July, the mean was 0·37 inch, or more than twelve times the usual quantity; the excess areas showed a mean of 0·43 inch, being 0·15 inch or 34 per cent. more than usual: and the areas of subnormal rainfall a mean of less than one-hundredth of an inch.

The accumulated rainfall since the beginning of the year (1925) was considerably above normal in all the Provinces, the only exceptional areas being part of the Cape Peninsula, of the south-west of the Cape Province, the south coast, the southern Karroo, parts of the central Karroo, and of the south-east, where occurred deficits varying from 0·08 inch at the Royal Observatory to 3·64 inches at Knysna, the shortages being greater in the east than in the west. In the Transvaal, the excesses were mostly between 4 and 8 inches, but increased to between 17 and 30 inches in the east and north, also in Swaziland; they varied, however, from 0·32 inch, or 2 per cent. above normal, at Ermelo to 28·39 inches, or 82 per cent. over the average, at Pigeonhole. In Swaziland, Mbabane showed a surplus of 30·91 inches, or 102 per cent. above the average quantity. In the Orange Free State, the *plus* quantities were greatest in the east, north-east, and south, being between 7 and 10 inches, and were least in the north and centre, where excesses of less than 2 inches occurred; the surplus amounts varied between 1·78 inch or 12 per cent. at Kroonstad and 10·50 inches or 89 per cent. at Bethulie. In Natal, the excesses were very large, mostly between 10 and 20 inches, but occasionally reaching double this latter amount: they varied between 4·27 inches or 28 per cent. at Weenen and 48·34 inches or 202 per cent. at Hlabisa, over normal. In the Cape Province, the excesses were mostly between 4 and 8 inches, but reached double figures in parts of the east of the northern Karroo, of the north-east, as well as Basutoland. These *plus* amounts ranged from 0·04 inch or less than 1 per cent. at Uitenhage to 13·60 inches or 104 per cent. at Aliwal North. In Basutoland, Mafeteng showed a surplus of 11·37 inches, or 57 per cent. above normal. In South-West Africa, Rehoboth, in the centre, was the only station showing a subnormal total for the seven months; the deficit was small, amounting to 0·15 inch, or less than 2 per cent. In the southern half the surplus amounts were commonly between 4 and 6 inches, but varied from 0·10 inch or 3 per cent. at Hierachabis to 11·02 inches or 157 per cent. at Voigtsgrund. Over the northern half of the territory the *plus* amounts were generally between 6 and 9 inches, but exceeded 10 inches in the north-east; they varied from 0·31 inch or 82 per cent. at Swakopmund to 16·45 inches or 106 per cent. at Rietfontein, in the north-east.

State of the Country, etc.—Although frost was of daily occurrence in some areas, particularly in the high veld, the weather over the *Transvaal* was generally mild and favourable to harvesting operations. Comparatively warm weather towards the end of the month had caused the earlier fruit trees to come into full blossoms; willow trees were either showing green or almost in full leaf, while young grass was turning the veld green in places where the old grass had been burned off. In fact, there were everywhere signs of an early spring. Mealie crops were generally satisfactory, notwithstanding the unusually wet season just past. As might have been expected, however, the maize was showing a high percentage of moisture, and the grain had to be dried before being sent to the elevators. The amount of moisture would appear to have varied considerably, being much less in mealies grown on sandy soil. The picking of cotton had been almost completed, but the yield per acre was considerably less than last year, owing mainly to the excessive rainfall, but also partly to the ravages of the jassid fly and boll-worm. Ploughing operations showed that, although dry on the surface, the soil was thoroughly moist in the lower layers. The light rains benefited the grass considerably in Swaziland, so that sheep there were looking well. Cattle were in good condition. In the *Orange Free State*, large crops of mealies were being reaped, sufficient in some places to make up for the losses of the previous year. Considerable quantities of wheat, oats, and rye, that had been sown during June and earlier, were coming up well, so that good crops were expected. Trees were beginning to bud between the 25th and 31st in Senekal District. The weather was ideal for harvesting and threshing, but windy towards the middle of the month, no doubt helping to dry out the maize. Cattle were generally in fine condition and sheep improving, although the latter were stated to be poor in the Ficksburg District. At Elandskop (Ficksburg District) the grass was green in sheltered positions, and stock were beginning to feed on the veld grass towards the end of the month. In the Bloemfontein District, the soil was still moist, so that green grass was expected early. In *Natal*, the weather was generally mild and pleasant, with frosty mornings at the higher stations and hazy on the coast, and generally a good deal of moisture in the air; some good rains were experienced; mostly slight winds or calm, but with a few cold, biting breezes in the afternoon. There were indications of an early spring; trees were showing new foliage at Hillcrest (Illovo), and apricots and mulberries were in blossom, also early peaches at Bluebank (Klip River County); at Ladysmith the breaking buds were awaiting a few warm days to enable them to open. Stock were in fair to good condition. In the *Cape Province*, the weather was comparatively mild generally, with bright days and cold mornings, and strong winds at times, more particularly about the middle of the month, when rather broken cloudy weather was experienced. One or two hot Berg winds of unusual intensity were experienced on the 19th and 29th. Cereals were looking well in the Riversdale, George, Graaff-Reinet, Albert, and Queenstown Divisions, while wheat was well forward in Kenhardt, and lucerne had started to grow. Ploughing was still being carried on in Albert and Hanover Districts, being backward owing to the wet condition of the soil; in Queenstown, a few showers were wanted to wet the surface of the ground, which was moist enough below. Fruit trees were well advanced all over the country, apricots, peaches, plums, and almonds bursting into blossom, e.g., Vryburg, Mount Fletcher, Queenstown, and Bedford Divisions, indicating an early spring. In the Elliot Division about half a crop of mealies had been gathered, and the natives in Bechuanaland were beginning to reap. The veld was generally described as beautiful in the west and south, but was only fair in Riversdale District. In the Beaufort West Division large areas were covered with flowers, and in the Mount Currie district new grass was beginning to show. In Bechuanaland, the veld was still good and grazing plentiful. Stock, both large and small, were generally in good condition and holding out well, but were only fair in Albert and Riversdale. In Mount Currie sheep were medium, while from Hanover it was reported that the lambs were healthy during the first half of the month, but not so healthy towards end of the month.

Water Supply, etc.—In the Zoutpansberg Division of the Transvaal the rivers and streams were stated to be fuller than for many years past, while the water supply at Riversdale (Cape Province) was now excellent, and in Senekal the fountains were stated to be stronger.

OBSERVERS' NOTES FOR JULY, 1925.

TRANSVAAL.

Waaikraal (*Rustenburg*).—No locusts, no diseases. Crops satisfactory. Rainfall: Nil.—W. Behrens.

Arcadia (*Standerton*).—Month generally milder than June. Rainfall: 0·24 inch on three days.—E. G. Lamport.

Gembokfontein (*Middelburg*).—Frost was recorded practically every morning during July. The days became warmer towards the end of the month. Rainfall: 0·04 inch on two days.—The Forester.

Mosdene (*Waterburg*).—A very mild month. The total amount of frost registered was 17·1 degrees on nine nights and the absolute minimum temperature 28·5 degrees, as compared with 103·4 degrees of frost on twenty-two nights and an absolute minimum of 23·1 degrees for July last year. Rainfall: Nil.—E. E. Gilpin.

Wakkerstroom.—Willow trees are showing a shade of green, and on quite a number of days we have had spring weather, and grass is springing in sheltered places. Moles are busy throwing up their mounds. Rainfall: 0·25 inch on one day.—J. C. Aspden.

Krugersdorp (*Witwatersrand*).—The month of July has been fine and equable, and at present there is every indication of an early spring. Fruit trees are in full blossom in many gardens. Rainfall: 0·23 inch on one day.—H. Sharp.

Sabie (*Lydenburg*).—The most noticeable features of July have been (*a*) the higher 8.30 a.m. temperatures, (*b*) the lower mean maximum temperature, (*c*) the presence of an unusual quantity of water-vapour in the atmosphere. Rainfall: 0·78 inch on three days.—W. F. Easton.

Nooitgedacht (*Waterberg*).—The month has been milder than July of last year. Frost occurred on twelve nights, with an average minimum of 29·8 degrees, as compared with twenty-four nights and a minimum average of 27·5 degrees. Crops are generally satisfactory, but maize shows a high percentage of moisture. A few miles south on the more sandy soil maize is much drier. Cattle in good condition. No locusts reported. Rainfall: Nil.—G. Gordon Brown.

Bralbin (*Rustenburg*).—On several occasions during July the sky became overcast and rain threatened. Atmospheric humidity higher than usual. Cotton harvesting about over. Soil in good ploughing condition. Maximum temperature, 78·0 degrees, and minimum temperature, 22·0 degrees. Rainfall: Nil.—R. S. McPherson.

Pigeonhole (*Zoutpansberg*).—Rivers and streams are fuller this winter than for many years past. Rainfall: 1·18 inch on seven days.—J. McCallum.

Barberton.—The greater part of the cotton crop has now been picked, and it is estimated a decrease of roughly 9 ℔. per acre is shown compared to last year's yield. This is due to the excessive rainfall. The jassid fly and bollworm have also been detrimental. Frost has been visible in the low-lying parts of the valley, but no extensive damage has occurred. Rainfall: Nil.—L. W. McClelland.

Ermelo.—A very mild, genial month. Nearly all mealies have been reaped, and are now being marketed—July delivery, 11s. 9d. per 200 ℔. Complaints have been made by dealers of excessive moisture, and the grain has to be dried out before forwarding to elevators. An early spring is predicted. Rainfall: 0·19 inch on one day.—J. Dean.

Parktown North (*Witwatersrand*).—The month of July was mild; heavy frosts for the first day, with a cold snap. Most fruit trees are in blossom, and willows almost in full leaf. Where veld has been burned, grass is quite green. Rainfall: 0·04 inch on two days.—G. S. Garnett.

Jackhalsfontein (*Zoutpansberg*).—Generally fine, with sharp, cold nights. A fairly good mealie crop. Rainfall: Nil.—J. C. Palmer.

Arcadia (*Pretoria*).—High barometer, dense haze, and frost during July. Rainfall: 0·17 inch on one day.—L. J. Goldblatt.

Piet Retief.—Very little frost during the month. Since the rainfall of the 25th, the grass has shown signs of springing. An early summer is anticipated. Rainfall: 0·57 inch on one day.—J. Werner.

Arbury (*Rustenburg*).—The veld is very dry, but cultivated lands have been ploughed and the soil turned up moist. Very little wind, except at night, and an occasional dust-whirl during the day. Frost has been recorded on twelve occasions only, as compared with twenty-four in July last year. The maximum temperatures correspond, each having fourteen days with 70 degrees and over. Rainfall: Nil.—G. W. Herdman.

SWAZILAND.

Mbabane.—The weather for July has been comparatively warm, except for one or two cold spells. The rainfall during the month did a lot of good to the grass. The sheep in consequence are looking very well. There is every prospect of an early spring. Rainfall: 0·24 inch on five days.—R. C. S. Markham.

ORANGE FREE STATE.

Holfontein Plantation (*Kroonstad*).—A very good month. Days have been like summer; the nights, however, were cold. Farmers are very busy with mealies. This year has certainly made up for the loss sustained last year. Instead of the haggard look of last year, one sees nothing but smiles this year, and instead of horses, one sees cars of all makes. Rainfall: Nil.—The Forester.

Wepener.—Fine weather during first ten days of month, but unsettled from then onwards. A fair number of the inhabitants suffering from colds and flu. Rainfall: 0·17 inch on two days.—W. D. Roche.

Lindley.—Heavy frost at night, and warm during days. Ideal weather for farmers, enabling them to get their crops in. Large quantities of mealies pass through the town daily, going to Lindley Road for elevator, which is working day and night to cope with them. Rainfall: 0·04 inch on one day.—The Gaoler.

Maloppposdraai (*Ficksburg*).—Most days warm, but heavy frosts at night. Cattle in fine condition, but sheep very poor. Half of the maize crop has been reaped, and is better than expected. Rainfall: 0·07 inch on one day.—J. P. le Roux.

Riverdale (*Kroonstad*).—Weather conditions this month have been almost ideal for harvesting and threshing. A few days promised rain, but nothing fell. Generally much warmer than last month. Cattle in good condition, and sheep improving. Trek oxen will have a hard time during the next months transporting mealies, and are likely to be in low condition when the ploughing season commences. Rainfall: Nil.—H. C. Kimmins.

Middelfontein (*Bethulie*).—The days in July were rather windy, with heavy frosts during night. Stock is still in fair condition. Farmers have sown a lot of wheat and rye, and are looking forward to a good crop. Rainfall: 0·16 inch on one day.—H. J. Joubert.

Unity (*Winburg*).—July was decidedly warmer than June; a few nights were cloudy; no frost. Fairly windy during middle of month. Wheat sown in June is coming up well, and that sown earlier is growing well. Rainfall: 0·08 inch on two days.—F. E. Parker.

Elandskop (*Senekal*).—Days warm and nights cold. Wheat, oats, rye, etc., begin to show up. Stock begins to improve, maize a little drier. 10th to 20th, heavy frosts some nights and cold by day; grass green where sheltered; stock seems set back. 20th to 25th, everything moist, fountains stronger, also warmer; stock better. 25th to 31st, weather warmer, trees begin to bud; frost still too nippy at night to allow fast growing of grass where burnt; stock begin feeding on veld grass. Rainfall: 0·04 inch on one day.—A. J. Radley.

Droogfontein (*Bloemfontein*).—During this month we had very cold winds. Sometimes heavy clouds, but no rain. Frost more severe than in other years, but luckily later in year. Soil still moist; expecting green grass early. Rainfall: Nil.—J. H. de Vries.

NATAL.

Pietermaritzburg (*Mental Hospital*).—The month of July has been on the whole a very mild one. We have had rain on one day just over an inch, which was very welcome, and everything has benefited by it. Rainfall: 1·07 inch on one day.—The Staff.

Newcastle (*The Convent*).—Mornings very frosty, but on the whole the month was very mild. Rainfall: 0·37 inch on two days.—The Mother Superior.

Ismont, Mid-Illovo.—A pleasant month, not too much wind. An early spring anticipated. Stock in fair condition. Rainfall: 1·65 inch on six days.—Lt.-Col. J. W. V. Montgomery, C.M.G., D.S.O.

Ladysmith.—Genial weather throughout whole of month. Clear and calm most mornings, with a few cold, biting breezes and duststorms in afternoons. There are evidences of the break of winter and of the near approach of spring in breaking buds just waiting for a few warm days to open. Stock in good winter condition. Rainfall: 0·45 inch on two days.—F. R. Hillebrand.

Hillcrest (Illovo).—Generally fine; light winds; 25th, the only wet day. Trees showing new foliage; early fruit, as apricots and mulberries, in blossom. Rainfall: 1·42 inch on nine days.—J. Dawson Clothier.

Dundee.—A very pleasant July month, and not much wind; a good deal of white frost, probably due to moist ground from last rainy season. On the evening of the 25th and well into the night we had a nice warm rain, and weather cleared up beautifully afterwards. Every sign of an early spring. Rainfall: 0·35 inch on two days.—W. Thorrold.

Durban (Point).—Weather generally fine; hazy in mornings to fine and clear later part of forenoon and remainder of day. Rainfall: 2·65 inches on five days.—The Port Captain.

Strathearn (Weenen).—Very mild, and a good bit of moisture. Every sign of an early spring. Rainfall: 0·49 inch on two days.—Miss E. Smythe.

Bluebank (Klip River County).—Lovely days, with heavy frosts during night. All stock in good condition. Early peaches in blossom. Rainfall: 0·13 inch on one day.—J. N. Niland.

CAPE PROVINCE.

Heimers River (George).—The veld is beautiful, and crops very promising. Large and small stock in good condition. Rainfall: 0·35 inch on two days.—E. Raubenheimer.

Paardekraal (Graaff-Reinet).—Crops very promising. Rainfall: 1·11 inch on three days.—W. Loubscher.

Visgat (Fraserburg).—Veld beautiful and cattle in excellent condition. Rainfall: 1·10 inch on five days.—G. le Roux.

Damplaats (Albert).—Cattle in fair condition, crops good, ploughing continues. Rainfall: 0·58 inch on six days.—A. Kruger.

Sassum (Elliot).—All stock holding out well; mealies about half a crop. Rainfall: 0·59 inch on one day.—C. S. McGregor.

Bedford.—Rainfall about average for the month. More wind than usual. All trees budding or blossoming, indicating premature spring. Rainfall: 1·12 inch on eight days.—T. C. Hall.

Queenstown.—On the whole, warm month for July, with strong north to westerly winds and dust. Hoar frost ten mornings; every sign of an early spring. Ground moist below, but a few showers wanted for the surface. Cereal crops looking well. Stock, large and small, in good condition. Rainfall: 0·48 inch on six days.—H. Holley.

Aliwal North.—A month of fine mild weather, with a few exceptions, light frosts, and fine bright days. Rainfall: 0·37 inch on seven days.—Alex. Alcock.

Carnarvon.—Comparatively mild, with brilliant weather predominating. Rainfall: 0·97 inch on six days.—A. P. Malherbe.

Clanwilliam.—Rains were very soft, except on the 19th (during night) heavy showers, just after the strong wind. Rainfall: 2·41 inches on ten days.—C. B. van Zijl.

Kimberley.—Nights and early mornings not so cold as previous month. Real fine summer days. Rainfall: 0·07 inch on one day.—J. H. Hay.

Vryburg.—Trees are showing bloom, which will be killed if any frost falls. Frosts practically ceased on 17th. Heavy fog mist on 23rd. Rainfall: 0·03 inch on two days.—Sergt. H. White.

Graaff-Reinet (*Convent*).—Some days were exceptionally fine during this month, though some nights were bitterly cold. Frost occurred on five days. Rainfall: 0·85 inch on five days.—The Mother Superior.

Nelspoort Sanatorium (*Beaufort West*).—A comparatively mild month. From the 3rd to the 9th the weather was ideal, and also at the latter end of the month. Large areas of the veld are covered with flowers, and it (the veld) is in good condition. Rainfall: 0·66 inch on five days.—P. Allan, M.D.

Riversdale.—The country is fair. The water supply is excellent. Crops are good. Berg wind was very hot and fierce. Cattle fair. Rainfall: 0·71 inch on five days.—J. Johnson.

Louisvale (*Kenhardt*).—A very mild month, and although midwinter, frost was only registered on two days. Lucerne has started to grow, and the wheat is forward. Local farmers anticipate a good coming season. Rainfall: 0·53 inch on three days.—Stuart M. Smith.

Andriesfontein (*Hanover*).—Lambs during first part of month healthy, but towards end not so healthy. Nearly all ploughing late, owing to lands being too wet. Rainfall: 0·74 inch on four days.—H. van der Merwe.

Sydney-on-Vaal (*Barkly West*).—Normal month's weather, though two spells of cloudy days gave rise to expectation of rain, which, however, was almost negligible. Rainfall: 0·04 inch on two days.—J. G. Richards.

Sandflats (*Mount Currie*).—Condition of cattle still good, sheep medium. Some slight indication of new growth of grass. A very mild month, with hardly any strong winds, but frosts nearly every morning. Rainfall: Nil.—H. B. Corderoy.

Sutherland.—Veld beautiful all round. Reports of locusts continue to come in. Rainfall: 1·72 inch on five days.—Dr. D. A. Stegmann.

Queenstown.—On the whole a very mild July. Fruit trees are much advanced, apricots, peaches, plums, and almonds bursting into blossom. Rather too early, and there is a danger of late frosts damaging fruit crops. There are general indications of an early spring. Rainfall: 0·51 inch on five days.—J. Rein.

Upington.—Variable weather during month. Cold nights, warm days. Windstorms occasionally. Stock in splendid condition. Rainfall: 0·61 inch on four days.—G. Richards.

Darling (*Malmesbury*).—Nice seasonable rains, and conditions favourable. Rainfall: 3·87 inches on fourteen days.—T. H. Drake.

Kraaipan (*Mafeking*).—A mild clear month, with some frost, but little wind. Locusts are still prevalent. Rainfall: Nil.—J. Hart.

Mount Fletcher.—There have been severe frosts this month. Snow on the mountains remains frozen all through the winter. The days were much warmer during the latter part of the month, whilst the fruit trees are in blossom, indicating an early spring. Stock appears to be in good condition. Rainfall: 0·10 inch on four days.—The Gaoler.

BECHUANALAND.

Selika (*Tuli Block*).—Bright weather, with cold nights, throughout the month. Rainfall: Nil.—The Resident Magistrate.

Palapye Road.—Cattle in good condition, veld good. Natives now commencing to reap their crops. Rainfall: Nil.—Thos. Shaw.

Dikgatlong Ranch (*Tuli Block*).—July has been normal. No locusts as yet: grazing still plentiful. The annual grass-burning has already started in the Waterberg. Rainfall: 0·02 inch on one day.—P. Jousse.

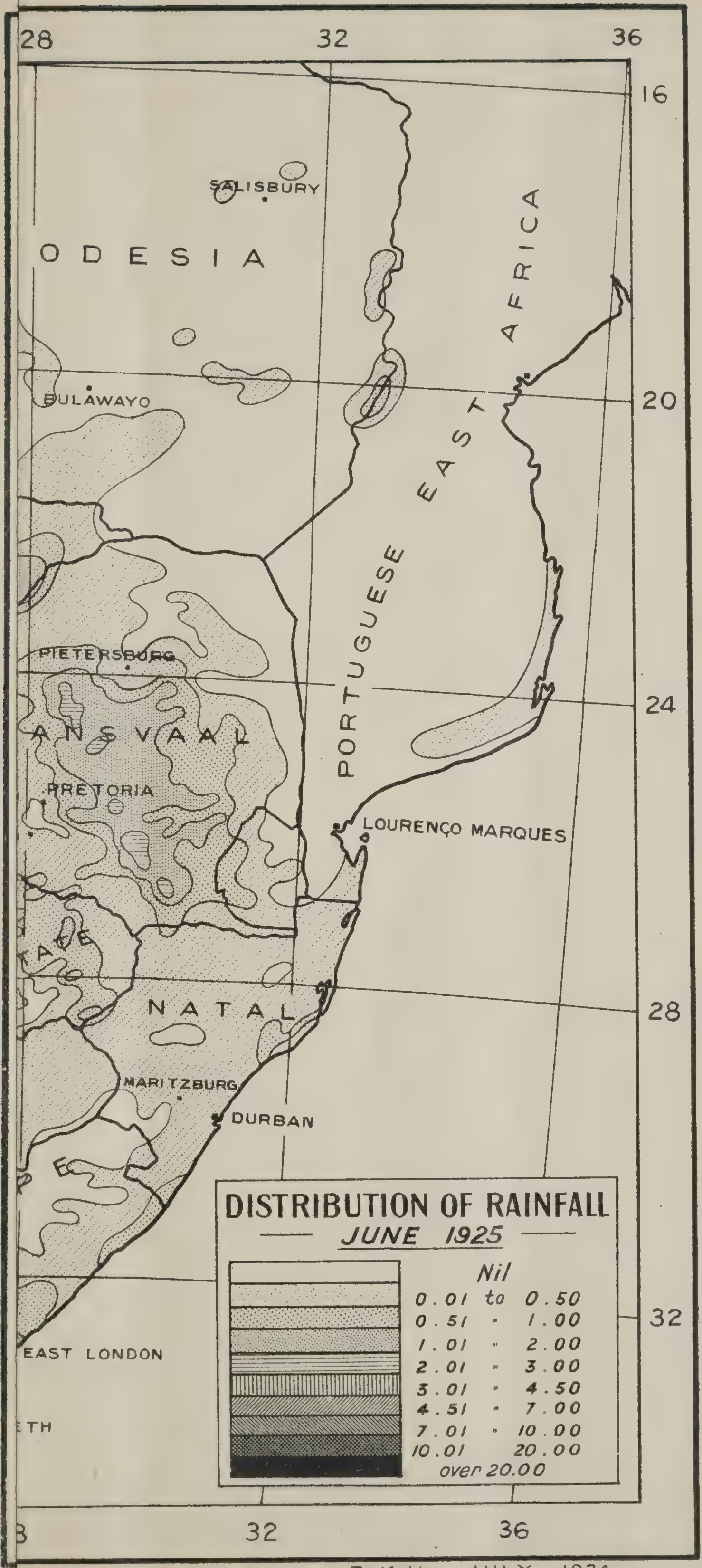
SEPTEMBER WEATHER CHARACTERISTICS.

With the advent of September there is generally a diminution in the rainfall along the western coast of the Union and an increase over the eastern districts. In the northern part of the Cape Province the minimum monthly rainfall is reached, whilst the Transvaal and Orange Free State may anticipate the commencement of the rainy season. The heaviest rains are usually experienced over the Cape Peninsula, the normal there being approximately 3·5 inches. The south-eastern and coastal districts and the eastern Transvaal receive about 2 inches; whilst the rainfall over the western Transvaal, Orange Free State, and the remainder of the Cape Province will probably not exceed an inch. Occasional, although infrequent, thunderstorms may occur. There will be a general rise in temperatures, the normals ranging from about 66 degrees in Natal and the eastern Transvaal, through 60 degrees on the Transvaal high-veld, and 58 degrees in the Orange Free State, to 55 degrees in Basutoland and on the northern Karroo. Frosts may, nevertheless, reasonably be expected, although their frequency and intensity will be rapidly diminishing.

The prevailing winds during this month are light, southerly over the Cape Peninsula, with frequent calms; south-westerly over the south-eastern districts; south-south-easterly over the northern borders of the Cape Province, although south-westerly breezes are almost equally frequent; north-north-westerly and northerly over the high-veld of the Transvaal. Compared with last month, there is a decrease of north-westerly and northerly winds over the Cape Peninsula, with an increase of all directions between west and south-south-east, but more particularly of south winds. In the south-east littoral there is a falling-off of breezes from those directions between west and north-north-east, but an increase in all others, especially of those from south-west. The most marked contrast is found between the winds at Johannesburg and those at Kimberley; at the former place there is an increase of winds from all points from south-east round by east to north-north-west, particularly of those from north, but a decrease of all others, more especially of those from south, south-south-west, and north-west: at Kimberley the reverse obtains, viz., a diminution in frequency of winds between north-north-west and east-south-east, chiefly of those from north-east, and an increase of all others, principally between west-south-west and south-south-west. The wind-force increases generally, except over the south-west of the Cape Province.

AIR TEMPERATURES (SELF-REGISTERING THERMOMETERS IN THERMOMETER-SCREENS), JULY, 1925.

Place.	Observer.	Mean Maximum.	Mean Minimum.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
Transvaal—		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Barberton	L. W. McClelland	71·8	47·1	59·5	59·4	+ 0·1	82·0	12th and 13th.	39·0	21st.
Belfast	The Forester	60·2	26·3	43·2	44·8	− 1·6	70·0	13th	17·0	1st.
Bloemhof	S.A. Police	65·8	31·8	48·8	49·0	− 0·2	74·8	30th	22·8	6th.
Ermelo	J. Dean	58·0	31·2	44·6	47·0	− 2·4	70·1	13th	22·1	17th.
Johannesburg (Observatory)	The Staff	59·9	38·5	49·2	50·4	− 1·2	69·2	31st	30·1	16th.
Klerksdorp (Strathmore)	C. Scott	65·2	29·7	47·5	50·2	− 2·7	74·0	13th, 29th, and 30th	19·0	6th.
Komatipoort	C. H. White	79·3	45·3	62·3	63·0	− 0·7	89·0	12th and 13th	35·0	2nd and 5th.
Louis Trichardt	C. L. Cope	66·5	42·5	54·5	55·7	− 1·2	78·0	14th and 28th	34·0	1st.
Middelburg	The Principal	64·9	30·9	47·9	48·2	− 0·3	72·0	1st and 13th.	23·4	4th.
Nylstroom	G. Bakker	69·3	35·3	52·3	52·6	− 0·3	77·0	14th	30·0	1st and 6th.
Pietersburg	H. Roos	68·0	36·6	52·3	52·6	− 0·3	77·0	13th	30·0	2nd.
Piet Retief	J. Werner	65·9	38·8	52·3	53·1	− 0·8	77·0	14th	30·0	7th.
Pigeonhole (New Agatha)	J. McCallum	62·8	46·7	54·7	—	—	71·0	11th, 13th, and 24th	41·0	20th.
Pilgrims Rest	A. Kiernandie	65·9	35·6	50·7	51·8	− 1·1	76·0	13th	25·0	1st and 2nd.
Potchefstroom (Exp. Farm)	The Manager	63·5	30·6	47·2	48·9	− 1·7	72·1	13th	19·2	6th.
Pretoria (Meteorological Office)	The Staff	68·3	36·4	52·3	51·7	+ 0·6	77·1	31st	29·2	4th.
Rustenburg	A. Streatfield	67·1	35·8	51·5	53·6	− 2·1	76·0	28th	29·0	1st and 2nd.
Standerton	The Magistrate	63·9	25·8	44·8	44·6	+ 0·2	72·5	1st	17·9	1st.
Zeerust	H. Dietrich	67·5	34·0	50·7	50·4	+ 0·3	76·0	24th	26·0	4th.
Swaziland—										
Mbabane	Swaziland Police	64·7	41·7	53·2	55·4	− 2·2	75·0	13th and 14th	33·0	2nd.
Orange Free State—										
Bethulie	J. J. Wardhaugh	60·6	31·6	46·1	47·0	− 0·9	69·5	31st	19·0	6th.
Bloemfontein	G. A. Schepers	60·9	31·2	46·1	47·6	− 1·5	71·2	13th	18·5	6th.
Harrismith	The Forester	56·2	32·9	44·6	46·4	− 1·8	64·0	13th and 31st	25·0	20th.
Kroonstad	A. C. Mason	63·7	28·1	45·9	47·2	− 1·3	72·1	12th	18·8	17th.
Ladybrand	The Forester	58·5	32·3	45·4	46·8	− 1·4	64·0	29th and 31st	24·0	6th.
Lindley	J. Murphy	61·9	27·1	44·5	47·0	− 2·5	70·8	31st	18·0	17th.
Natal—										
Dundee	W. Thorrold	66·6	35·0	50·8	54·4	− 3·6	78·0	13th	26·0	8th.
Durban (Point)	The Port Captain	70·6	55·2	62·9	64·6	− 1·7	77·8	12th	50·6	20th.
Empangeni	The Forester	71·3	49·8	60·6	62·8	− 2·2	83·0	14th	39·0	3rd.
Estcourt	The Town Clerk	64·7	32·3	48·5	51·6	− 3·1	75·0	13th	25·0	3rd and 20th.
Hlabisa	E. E. Redgrove	68·7	50·4	59·6	63·9	− 4·3	84·0	12th	44·0	26th.
Ladysmith	F. R. Hillebrand	65·7	35·3	50·5	53·0	− 2·5	77·0	13th	27·0	20th.
Maritzburg (Mental Hospital)	The Staff	68·7	41·8	55·3	58·6	− 3·3	80·5	30th	32·5	3rd.
Stanger	C. C. Foss	73·4	53·8	63·6	63·8	− 0·2	89·0	12th and 14th.	47·0	21st.
Weenen	The Gaoler	67·9	33·0	50·5	52·3	− 1·8	78·5	15th	26·0	1st, 2nd, 3rd, 4th, and 8th.

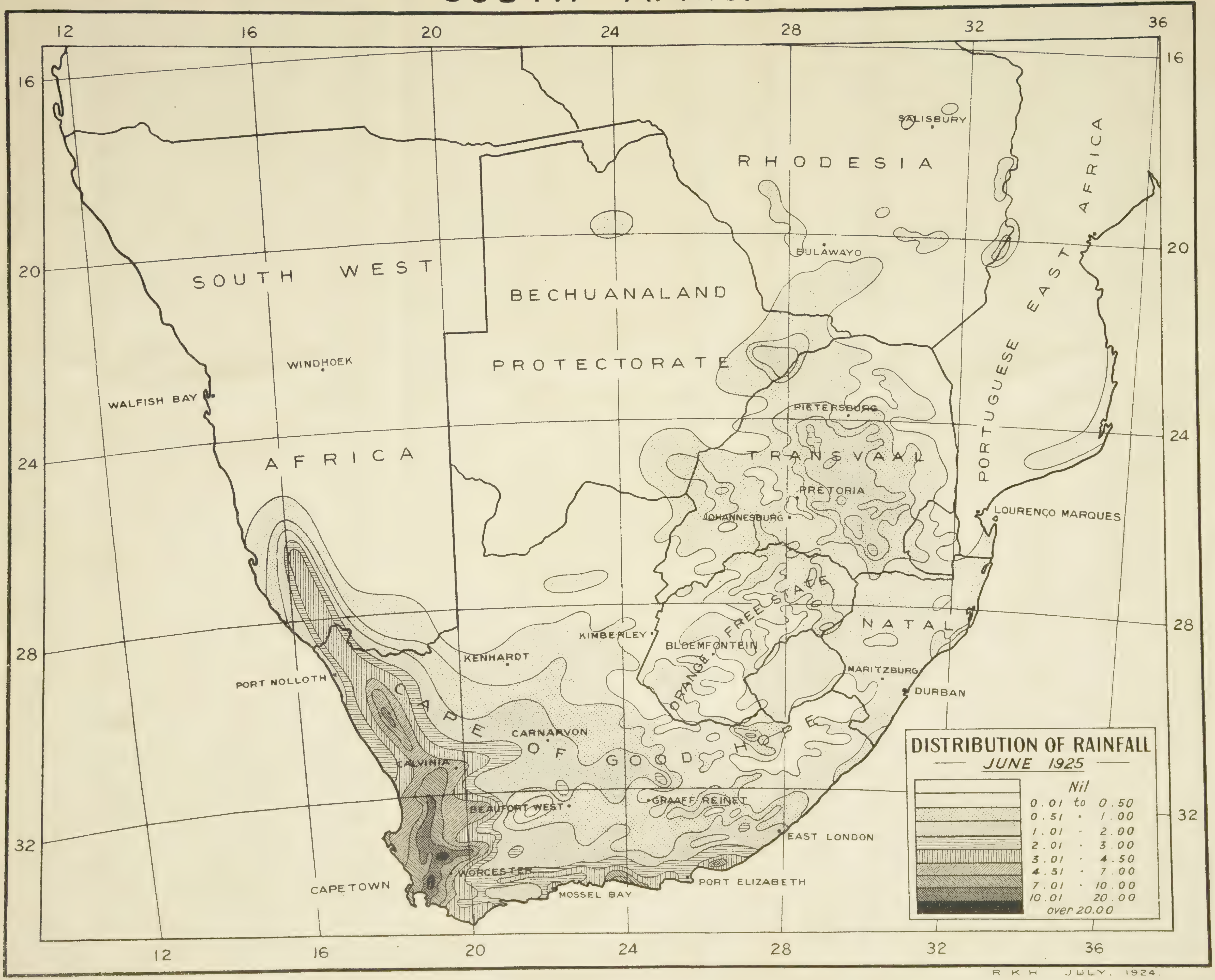


DISTRIBUTION OF RAINFALL

JUNE 1925

R.K.H. JULY, 1924.

SOUTH AFRICA



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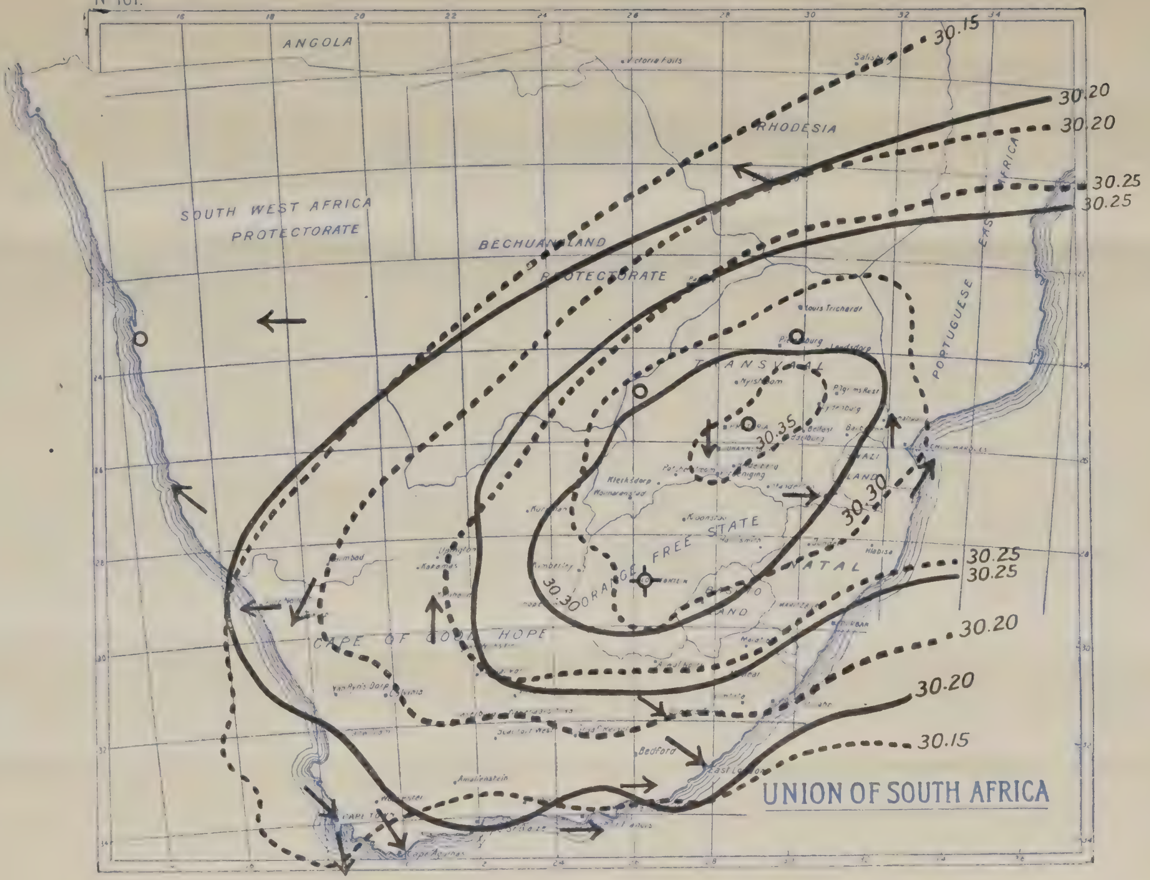

July, 1925. Prevailing Winds and Mean Barometric Pressure at 8.30 a.m.
The dotted lines indicate the normal distribution for July.

AIR TEMPERATURES, JULY, 1925—(*continued*).

Place.	Observer.	Mean Maximum.	Mean Minimum.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
Cape Province—		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Aliwal North	Alex. Alcock	61·3	30·7	46·0	46·4	− 0·4	70·5	31st	19·5	6th.
Bedford	Thos. C. Hall	63·3	39·4	51·4	54·5	− 3·1	74·5	31st	31·0	6th.
Capetown (Royal Observatory)	The Staff	62·3	49·1	55·7	54·8	+ 0·9	76·9	8th	39·3	7th.
Carnarvon	A. P. Malherbe	57·2	32·5	44·8	47·0	− 2·2	68·0	31st	24·0	7th, 16th, and 25th.
Clanwilliam	C. B. van Zijl	67·4	43·5	55·4	54·2	+ 1·2	81·0	29th	33·0	6th.
East London	The Port Captain	69·0	49·9	59·4	60·0	− 0·6	83·0	10th	41·0	8th.
Graaff-Reinet (Convent)	The Mother Superior	65·3	45·2	55·2	53·1	+ 2·1	76·2	29th	31·3	6th.
Grahamstown	The Vet. Res. Officer	66·1	38·6	52·4	54·8	− 2·4	83·2	23rd	27·4	7th.
Groot Drakenstein	A. Franceys	62·3	45·1	53·7	54·0	− 0·3	78·0	1st and 8th	35·0	5th, 6th, and 23rd.
Kenhardt	A. Seydell	65·0	33·4	49·2	51·3	− 2·1	78·0	29th	24·0	6th.
Kimberley	C. H. Dowler	64·9	37·0	51·0	50·6	+ 0·4	75·0	31st	27·0	15th.
Kingwilliamstown	W. A. Kindness	68·5	43·6	56·0	57·3	− 1·3	79·0	11th	32·5	7th.
Kokstad	H. D. Coyte	63·6	31·0	47·3	48·9	− 1·6	75·0	31st	20·0	7th.
Mafeking (Convent)	The Mother Superior	66·8	35·8	51·3	53·6	− 2·3	75·1	28th	26·8	4th.
Mossel Bay (Cape St. Blaize)	The Lightkeeper	66·0	52·6	59·3	57·9	+ 1·4	80·0	1st	41·5	6th.
Murraysburg	—	—	—	—	45·9	—	—	—	—	—
O'okiep	H. T. Wyles	59·0	42·6	50·8	53·2	− 2·4	72·0	31st	34·4	6th.
Port Elizabeth	The Lightkeeper	66·2	50·3	58·2	58·8	− 0·6	80·0	1st	42·0	7th.
Port Nolloth	The Lightkeeper	64·0	47·3	55·6	55·0	+ 0·6	83·0	9th	39·0	27th.
Port St. Johns (Cape Hermes)	The Lightkeeper	70·8	53·9	62·4	61·5	+ 0·9	79·0	1st, 3rd, 11th and 30th	49·0	4th.
Queenstown	H. Holley	63·0	36·1	49·6	51·4	− 1·8	73·0	31st	23·0	6th and 7th.
Somerset East	C. Harris	63·9	42·3	53·1	54·2	− 1·1	73·5	31st	29·4	6th.
Stutterheim	F. C. Bousfield	—	—	—	54·8	—	—	—	—	—
Sydney's Hope	Rev. S. Rippon	62·2	46·7	54·4	56·0	− 1·6	72·8	10th	37·0	5th.
Uitenhage	H. Inggs	69·9	41·0	55·4	57·4	− 2·0	81·5	9th	32·0	7th.
Umtata	P. Hackett	69·2	35·7	52·4	54·0	− 1·6	81·6	30th	25·2	7th.
Vryburg	Sergt. H. White	65·6	32·9	49·2	48·9	− 0·3	75·0	13th	25·0	2nd and 17th.
Wynberg (Convent)	The Mother Superior	63·0	47·9	55·4	56·0	− 0·6	79·8	1st	40·8	26th.
Basutoland—										
Mafeteng	F. Hodgson	55·8	33·4	44·6	48·4	− 3·8	65·0	13th	24·0	6th.

RAINFALL, JULY, 1925.

Place.	Observer.	Month, July, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.
	•	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Transvaal—							
Barberton	L. W. McClelland	0·00	0·30	— 0·30	24·42	18·07	+ 6·35
Belfast	The Forester	0·50	0·26	+ 0·24	23·20	16·78	+ 6·42
Bethal	H. F. Joubert	0·21	0·17	+ 0·04	15·69	14·17	+ 1·52
Bloemhof	S.A. Police	0·00	0·32	— 0·32	—	12·14	—
Claremont	S.A. Police	0·00	0·04	— 0·04	—	—	—
Ermelo	The Forester	0·11	0·28	— 0·17	15·15	14·83	+ 0·32
Haenertsburg	S.A. Police	0·00	0·57	— 0·57	42·78	24·95	+17·83
Heidelberg	W. ter Horst	0·00	0·31	— 0·31	—	—	—
Johannesburg (Observatory)	The Staff	0·18	0·33	— 0·15	21·61	16·68	+ 4·93
Joubert Park	The Supt. of Parks	0·26	0·33	— 0·07	25·18	18·81	+ 6·37
Klerksdorp (Strathmore)	C. Scott	0·08	0·33	— 0·25	18·52	13·81	+ 4·71
Komatipoort	C. H. White	0·15	0·31	— 0·16	29·93	18·05	+11·88
Louis Trichardt	C. L. Cope	1·21	0·49	+ 0·72	39·57	18·68	+20·89
Middelburg	The Principal	0·00	0·09	— 0·09	—	14·95	—
Nylstroom	G. Bakker	0·00	0·20	— 0·20	22·09	14·31	+ 7·78
Pietersburg	H. Roos	0·18	0·23	— 0·05	15·16	11·61	+ 3·55
Piet Retief	J. Werner	0·57	0·35	+ 0·22	25·78	18·60	+ 7·18
Pigeonhole (New Agatha)	J. McCallum	1·18	0·87	+ 0·31	58·11	29·72	+28·39
Pilgrims Rest	A. Kiernandie	0·13	0·38	— 0·25	44·78	26·13	+18·65
Potchefstroom (Exp. Farm)	The Manager	0·23	0·32	— 0·09	20·96	12·98	+ 7·98
Pretoria (Meteorological Office)	The Staff	0·35	0·23	+ 0·12	24·37	16·15	+ 8·22
Rooiberg	W. P. Wald	0·00	0·28	— 0·28	17·11	14·45	+ 2·66
Rustenburg	A. Streatfield	0·14	0·40	— 0·26	22·67	14·89	+ 7·78
Standerton	The Magistrate	0·08	0·34	— 0·26	—	15·21	—
Wakkerstroom	J. C. Aspden	0·25	0·39	— 0·14	21·99	17·21	+ 4·78
Woodbush I.	The Forester	1·66	0·99	+ 0·67	72·49	46·22	+26·27
Zeerust	H. Dietrich	0·05	0·23	— 0·18	23·04	14·40	+ 8·64
Swaziland—							
Mbabane	Swaziland Police	0·24	0·67	— 0·43	61·11	30·20	+30·91
Orange Free State—							
Bethulie	J. J. Wardhaugh	0·41	0·36	+ 0·05	22·27	11·77	+10·50
Bloemfontein	G. A. Schepers	0·02	0·36	— 0·34	16·23	14·25	+ 1·98
Boshof	E. W. Milton	0·00	0·31	— 0·31	14·87	12·40	+ 2·47
Harrismith	The Forester	0·23	0·35	— 0·12	23·55	15·87	+ 7·68
Kroonstad	A. C. Mason	0·02	0·29	— 0·27	16·38	14·60	+ 1·78
Ladybrand	The Forester	0·10	0·50	— 0·40	24·48	15·78	+ 8·70
Lindley	The Gaoler	0·04	0·30	— 0·26	21·05	13·84	+ 7·21

RAINFALL, JULY, 1925—(*continued*).

Place.	Observer.	Month, July, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Natal—							
Dundee	W. Thorrold	0·35	0·23	+ 0·12	26·26	17·89	+ 8·37
Durban (Point)	The Port Captain	2·65	1·21	+ 1·44	36·64	22·00	+14·64
Empangeni	The Forester	3·71	2·08	+ 1·63	61·78	26·25	+35·53
Estcourt	The Town Clerk	0·70	0·26	+ 0·44	32·05	16·83	+15·22
Hlabisa	E. E. Redgrove	3·55	0·91	+ 2·64	72·07	23·73	+48·34
Howick	The Gaoler	0·68	0·32	+ 0·36	32·14	18·63	+13·51
Ladysmith	F. R. Hillebrand	0·45	0·20	+ 0·25	34·35	16·42	+17·93
Maritzburg (Mental Hospital)	The Staff	1·07	0·35	+ 0·72	34·58	20·36	+14·22
Stanger	C. C. Foss	2·25	1·08	+ 1·17	42·90	21·24	+21·66
Vryheid	The Gaoler	1·40	0·37	+ 1·03	29·09	18·61	+10·48
Weenen	The Gaoler	0·27	0·18	+ 0·09	19·69	15·42	+ 4·27
Cape Province—							
Aliwal North	A. Alcock	0·37	0·41	− 0·04	26·61	13·01	+13·60
Beaufort West	The Gaoler	0·44	0·27	+ 0·17	6·47	6·35	+ 0·12
Bedford	T. C. Hall	1·12	0·65	+ 0·47	15·85	16·22	− 0·37
Britstown	S.A. Police	0·67	0·24	+ 0·43	16·65	8·45	+ 8·20
Calvinia	The Gaoler	2·50	0·91	+ 1·59	12·18	5·65	+ 6·53
Capetown (Royal Observatory)	The Staff	4·00	3·69	+ 0·31	16·09	16·17	− 0·08
Ceres	The Gaoler	7·33	6·07	+ 1·26	33·13	24·75	+ 8·38
Carnarvon	A. P. Malherbe	0·97	0·21	+ 0·76	13·11	5·86	+ 7·25
Clanwilliam	The Gaoler	2·45	1·39	+ 1·06	11·14	5·72	+ 5·42
Concordia	F. H. Carstens	2·84	0·67	+ 2·17	11·65	4·37	+ 7·28
Driefontein (French Hoek)	The Forester	12·22	10·83	+ 1·39	49·51	49·63	− 0·12
East London	A. Downie	0·58	1·23	− 0·65	23·03	17·72	+ 5·31
Fraserburg	The Gaoler	1·66	0·29	+ 1·37	8·34	5·00	+ 3·34
Grahamstown	The Vet. Res. Officer	0·37	1·14	− 0·77	13·21	15·37	− 2·16
Garies	The Gaoler	—	0·71		—	3·18	—
Graaff-Reinet (Convent)	The Mother Superior	0·85	0·43	+ 0·42	9·80	8·61	+ 1·19
Groot Drakenstein	A. L. Franceys	9·18	5·25	+ 3·93	27·12	22·26	+ 4·86
Griquatown	The Gaoler	0·40	0·21	+ 0·19	16·29	9·42	+ 6·87
George (Rectory)	Rev. Canon B. Price	0·91	1·60	− 0·69	16·56	19·26	− 2·70
Hanover	The Gaoler	0·79	0·37	+ 0·42	13·72	9·50	+ 4·22
Hopetown	The Gaoler	—	0·26	—	—	9·06	—
Kenhardt	R. Seydell	0·59	0·20	+ 0·39	5·98	4·43	+ 1·55
Kimberley	C. H. Dowler	0·07	0·30	− 0·23	16·21	10·62	+ 5·59
Knysna	The Gaoler	0·66	2·15	− 1·49	12·17	15·81	− 3·64
Kokstad	H. D. Coyte	0·08	0·23	− 0·15	21·47	15·62	+ 5·85
Kingwilliamstown	W. Kindness	0·42	1·00	− 0·58	18·21	14·43	+ 3·78

RAINFALL, JULY, 1925—(*continued*).

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		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Cape Province (continued)—							
Kuruman	Res. Magistrate	0·01	0·24	— 0·23	20·70	12·18	+ 8·52
Mafeking (Convent)	The Mother Superior	0·00	0·40	— 0·40	19·33	13·74	+ 5·59
Mossel Bay (Cape St. Blaize)	The Lightkeeper	0·78	1·22	— 0·44	8·93	9·93	— 1·00
Murraysburg	W. Rose-Innes	—	0·29	—	—	7·61	—
O'okiep	H. T. Wyles	2·41	0·85	+ 1·56	10·01	4·52	+ 5·49
Philipstown	The Gaoler	0·78	0·29	+ 0·49	20·62	9·58	+11·04
Piquetberg	The Gaoler	3·14	2·84	+ 0·30	15·69	12·25	+ 3·44
Port Elizabeth	The Lightkeeper	1·22	1·87	— 0·65	10·10	12·12	— 2·02
Port St. Johns	The Lightkeeper	1·43	1·11	+ 0·32	30·12	26·15	+ 3·97
Port Nolloth	The Lightkeeper	1·27	0·33	+ 0·94	4·53	1·61	+ 2·92
Prieska	The Gaoler	0·20	0·21	— 0·01	14·58	7·44	+ 7·14
Queenstown	H. Holley	0·48	0·54	— 0·06	17·00	14·51	+ 2·49
Steytlerville	The Gaoler	0·62	0·21	+ 0·41	4·87	5·80	— 0·93
Sutherland	The Gaoler	1·66	0·96	+ 0·70	13·16	6·37	+ 6·79
Swellendam	The Gaoler	1·09	2·17	— 1·08	17·03	18·42	— 1·39
Sydney's Hope	Rev. S. Rippon	1·17	0·94	+ 0·23	14·39	12·59	+ 1·80
Somerset East	C. Harris	1·20	0·73	+ 0·47	12·86	14·99	— 2·13
Stutterheim	**F. C. Bousfield**	0·60	0·59	+ 0·01	22·63	17·21	+ 5·42
Uitenhage	**H. Inggs**	0·68	0·76	— 0·08	9·60	9·56	+ 0·04
Umtata	**B. J. Hackitt**	0·33	0·52	— 0·19	18·62	14·98	+ 3·64
Uniondale	The Gaoler	1·08	0·97	+ 0·11	6·27	7·90	— 1·63
Upington	**The Gaoler**	0·61	0·12	+ 0·49	11·51	5·33	+ 6·18
Victoria West	**The Gaoler**	0·90	0·28	+ 0·62	9·33	7·51	+ 1·82
Vryburg	Sergt. H. White	0·03	0·25	— 0·22	19·97	13·48	+ 6·49
Worcester	The Gaoler	1·95	1·83	+ 0·12	10·96	7·70	+ 3·26
Wynberg (Convent)	The Mother Superior	7·20	7·65	— 0·45	28·73	27·97	+ 0·76
***Basutoland*—**							
Mafeteng	F. Hodgson	0·10	0·58	— 0·48	31·31	19·94	+11·37
***South-West Africa*—**							
Aroab	S.W.A. Police	1·04	0·01	+ 1·03	11·51	6·92	+ 4·59
Aus	E. Martins	2·56	0·22	+ 2·34	10·70	3·48	+ 7·22
Bethanie	**Rev. W. Peter**	0·59	0·01	+ 0·58	8·78	3·79	+ 4·99
Duesternbrock	**R. Matthiessen**	0·53	0·01	+ 0·52	15·77	11·53	+ 4·24
Franzfontein	**H. Janson**	0·00	0·00	± 0·00	15·00	8·16	+ 6·84
Garinais	**F. Bertling**	0·16	0·05	+ 0·11	10·11	4·90	+ 5·21
Gibeon	The Postmaster	0·57	0·04	+ 0·53	11·09	5·21	+ 6·88
Gobabis	Rev. J. Irle	0·31	0·02	+ 0·29	16·59	12·68	+ 3·91

RAINFALL, JULY, 1925—(*continued*).

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		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
South-West Africa (continued)—							
Grootfontein	A. Pitkowski	0·08	0·00	+ 0·08	28·21	15·74	+12·47
Gr. Witvlei	F. Rueckert	0·35	0·01	+ 0·34	17·90	11·45	+ 6·45
Haribes	G. Freund	0·55	0·00	+ 0·55	8·78	6·51	+ 2·27
Heirachabis	Rev. P. Stroka	0·04	0·02	+ 0·02	3·13	3·03	+ 0·10
Kalkfontein S.	S.W.A. Police	0·39	0·05	+ 0·34	8·57	5·14	+ 3·43
Karibib	The Magistrate	0·01	0·00	+ 0·01	10·41	5·02	+ 5·39
Keetmanshoop	H. van Hartmann	0·25	0·07	+ 0·18	8·69	4·66	+ 4·03
Luderitz Bay	H. Eberlanz	0·34	0·04	+ 0·30	1·12	0·47	+ 0·65
Maltahoehe	The Magistrate	0·00	0·02	− 0·02	8·43	5·32	+ 3·11
Mariental	J. Empelmann	0·70	0·01	+ 0·69	7·50	5·46	+ 2·04
Neu Heusis	Liebig's Extract Co.	0·67	0·02	+ 0·65	19·87	10·83	+ 9·04
Okahandja	B. Templin	0·54	0·04	+ 0·50	21·61	11·89	+ 9·72
Okapehuri	H. v. Rudno	0·23	0·00	+ 0·23	19·45	10·01	+ 9·44
Okosongomingo	R. H. A. Schneider	0·56	0·00	+ 0·56	19·86	13·00	+ 6·86
Omaruru	The Postmaster	0·08	0·01	+ 0·07	18·16	9·45	+ 8·71
Otjiwarongo	The Magistrate	0·05	0·01	+ 0·04	16·18	12·18	+ 4·00
Outjo	The Magistrate	0·01	0·00	+ 0·01	21·69	12·07	+ 9·62
Rehoboth	The Postmaster	0·19	0·00	+ 0·19	8·31	8·46	− 0·15
Rietfontein	K. Eichler	0·00	0·00	± 0·00	32·03	15·58	+16·45
Swakopmund	Dr. Schwietering	0·00	0·01	− 0·01	0·69	0·38	+ 0·31
Tsumeb	Ing. Schetter	0·01	0·02	− 0·01	28·17	17·44	+10·73
Usakos	Rev. W. Brockmann	0·01	0·00	+ 0·01	12·42	4·70	+ 7·72
Voigtsgrund	A. Voigts	0·38	0·01	+ 0·37	18·06	7·04	+11·02
Warmbad	A. Ghyoot	0·63	0·16	+ 0·47	4·22	3·10	+ 1·12
Waterberg	D. Hahn	0·24	0·00	+ 0·24	22·43	15·05	+ 7·38
Wilhelmstal	W. Boehmker	0·08	0·00	+ 0·08	17·98	9·78	+ 8·20
Windhoek	Observatory	0·73	0·03	+ 0·70	20·93	12·40	+ 8·53

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MAR 8 1927
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MONTHLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE.

Vol. VI. **AUGUST, 1925.** **No. 68.**

UNUSUALLY calm, clear, warm weather, with a marked absence of the strong, gusty winds and duststorms ; mean atmospheric pressure higher than usual, over the whole country, the prevailing conditions being mainly anticyclonic with few coastal low-pressure systems ; monthly temperature about one and a half degrees higher than usual, the days being more than two degrees and the nights half a degree in excess of normal ; few frosts, mainly confined to the first half of the month ; rainfall almost everywhere sub-normal ; a total absence of precipitation over the Transvaal, except in portions of the north-east, east, south, and south-west ; also in the Kroonstad, Frankfort, and Senekal districts of the Orange Free State, with light showers mainly between the 10th and 12th, over the remaining districts ; rainfall also " Nil " at a number of stations in Bechuanaland, the northern border, northern Karroo, and parts of Kaffraria ; light rains elsewhere and in Natal ; a number of thunderstorms ; grass turning green unusually early, and early fruit trees in blossom, with every sign of an early spring ; such were the leading features of the weather of August, 1925.

Pressure.—Atmospheric pressure during August was everywhere above normal, being about half-a-tenth higher than usual over Rhodesia, central Cape, Orange Free State, and Transvaal. Anticyclonic conditions were persistent over the whole Union throughout the month, and on only five days did low-pressure areas appear on the south coast, viz., 9th, 11th, 12th, 16th, and 24th.

On the 1st, an anticyclone covered the whole Union, the highest pressure 30·45 inches, lying over the Transvaal, north of the Orange Free State, and Natal, and the south of Portuguese East Africa ; while the lowest isobar of 30·15 inches lay along the south coast and over South-West Africa, the axis of the anticyclone lay in a general north-east to south-west direction ; no rain fell during the previous twenty-four hours ; on the 2nd, anticyclonic conditions continued, the highest pressure having decreased in the north-east by about half-a-tenth to 30·40, and by a similar amount over South-West Africa ; but it had risen by a similar amount along the south coast ; no rain ; on the 3rd, the core of the anticyclone had contracted, so that the area enclosed by the 30·40 in line lay over the Orange Free State, the south and east of the Transvaal, a slight fall having taken place in the north and east, and an increase in the west and south of the Union; no rain; on the 4th, a slight fall had occurred in the west and south-west, but an increase had taken place in the south-east and east, so that the north-western portion of the anticyclone lay over the Union with the highest pressure covering the south of the Transvaal, the extreme east of the northern Karroo, the greater portion of the east of the Cape Province and the west of Natal; an isobar of 30·15 lay along the west coast; moderate to strong easterly winds in the south-west of the Cape pointed to an oncoming low-pressure area; on the 5th, pressure had fallen generally, by about a tenth of an inch in the east and west, by about two-tenths in the south west, and three-tenths in the south and south-east; pressure was consequently still highest, 30·30 inches, over the east of the Orange Free State, south and east of the Transvaal, and the south of Portuguese East Africa, and was lowest, 30·00 inches, on the west and south coasts; light northerly winds prevailed in the south and south-east; no rain; on the 6th, pressure had risen by about three-tenths in the south and south-west, had remained practically steady on the west coast, but had fallen about a tenth in the east; the highest pressure formed a wedge, lying from north-west to south-west, and the isobars decreased to north-west and south-east, being 30·15 inches along the east coast, whilst an isobar of 29·95 inches lay off the coast of South-West Africa; some showers had fallen along the south coast; on the 7th, the high pressure had moved to the east so that the Union was under the rear of the anticyclone, pressure having risen 2–3 tenths in the east and having fallen a tenth in the south-west; the low-pressure isobar of 29·95 inches, which lay off the South-West African coast on the previous day, had moved farther south and was now off the mouth of the Orange River; moderate to strong east winds were blowing along the south coast and in Namaqualand; coastal rains had fallen along the south, south-east, and east coasts as far as Zululand, and had penetrated a short distance inland; on the 8th, the 29·95-inch isobar was lying along the west coast and pressure had decreased generally, by about two-tenths in the south-east, while the highest isobar of 30·35 inches, now lay over the north-east extending into Portuguese East Africa; showers had occurred at a few stations in the south-west of the Cape Province, and at Durban; on the 9th, the highest pressure had decreased to 30·30 inches, but still lay in the north-east of the Union over the south and east of the Transvaal, while the lowest isobar of 29·90 inches lay over the western portion of the south coast; rain had fallen on the Namaqualand plateau, the west of the northern Karroo and parts of the south-west of the Cape; also coastal rain in Portuguese East Africa; on the 10th, the lowest barometric readings were 30·00 inches, on the south coast; pressure in the north-east had decreased to 30·20 inches, whilst a "low" was forming over South-West Africa where a second isobar of 30·00 inches occupied the interior; showers had fallen in parts of the west, south-west and south-east of the Cape, as well as of the northern border and southern Bechuanaland; on the 11th, the low pressure, which was evidently off the south coast the previous day, had surged northwards on to the land, and was now covering the greater part of the Cape Province, the south of the Orange Free State, and Natal; the lowest isobar being 29·75 inches along the south coast; the complementary low pressure in South-West Africa was somewhat better defined, whilst fragments of anticyclones lay over the east and west of the Union, moderate to strong northerly to westerly winds were prevalent over the whole country; rain had fallen over the west, south-west, south, and south-east coasts as far as East London and inland over the southern and central Karroos, the southern and eastern parts of the northern Karroo, the north-east, south-east of the Cape and part of Kaffraria; also over Basutoland, the south-west of the Transvaal, and the western half and part of the east of the Orange Free State; on the 12th, the southern "low" had moved north-east so that the lowest isobar of 29·85 inches lay along the east coast, being one of the rear isobars of the depression; an increase of two to four-tenths had occurred in the barometer in the south and south-west, the western "high" having pushed well on to the land, an isobar of 30·25 inches lying along the west coast; the interior "low" over South-West Africa had remained almost unchanged; the isobars had assumed a more decided north-east to south-west trend and moderate to strong west to south-west winds prevailed over the Union; rain had fallen along the west coastal area, including Namaqualand, the south-west, the south coast, the southern and central Karroos, the west, south, and east of the northern Karroo, with showers in the north of Kaffraria and the north-east and north of the Orange Free State; on the 13th, pressure had increased generally by three-tenths in the east, two-tenths in the south, and half a tenth in the west, while a very small increase had occurred in the northern interior "low"; the highest isobar was 30·30 inches, in the west a 30·15 inch line lay along the south coast and across the sub-continent from a little south of Walvis Bay to Lourenco Marques, the country being under the forepart of an anticyclone; showers had occurred on the Namaqualand plateau, on the south, south-east, and part of the Natal coasts, also portions of the south-east, the north of Kaffraria, the east of the central Karroo, the west of the northern Karroo, the south and east of the Orange Free State and Basutoland; on the 14th, an increase of pressure amounting to about one-tenth of an inch had occurred almost generally over the Union and also in Rhodesia, and the interior of South-West Africa, so that the country lay under isobars of 30·25–30·30 inches, on the other hand, a fall in pressure of about a tenth had occurred along the coast of Namaqualand and the South-West Territory; showers had occurred over the south-west of the Cape and parts of the south coast; on the 15th, the "high" had moved to the north-east so that only the rear lay over the land, whilst a fall had occurred along the south and west coasts of the Union, whilst a slight rise had occurred on the coast of South-West Africa; there were indications of a low pressure appearing in the west of the Union with a complementary "low" in the north of South-West Africa; a fragment of an anticyclone was apparent off the west coast; no rain had fallen during the previous 24 hours; on the 16th, a low pressure had appeared on the south and was covering the greater part of the Cape Province; the western "high" had pushed on to the west coast, while the eastern "high" had moved more to the north-east and had decreased by a tenth of an inch; the interior low had moved northwards off the map; the lowest isobar of 29·80 inches lay between Cape Agulhas and Cape St. Francis, some showers had occurred over the south-west of the Transvaal; on the 17th, the eastern "high" had disappeared, the southern low had moved off to the north-east and the front of the western "high" was now covering the whole country with the highest isobar of 30·25 inches, on the west coast at Port Nolloth; some rain had fallen over the south of the west coastal area and the south-west of the Cape Province, also over the western half of the south of the Transvaal; on the 18th, the western "high" had moved a little further east, so that a 30·30 inch isobar lay over the north-west of the Cape Province, otherwise conditions were practically unchanged; some showers had again fallen over the south-west of the Cape Province; on the 19th, the western portion of the "high" was covering the country with an isobar of 30·40 inches in the north-east, decreasing to 30·00 inches on the South-West Africa coast; light showers had again fallen over the Cape Peninsula; on the 20th, a decrease of pressure amounting to one to two tenths had occurred over the east, south, and west coast, but a slight rise of a few hundredths had occurred at Walvis Bay and Rhodesia, otherwise conditions were unchanged; no rain; by the 21st, pressure had decreased by about two-tenths in the south and south-east as the result of the head of a depression impinging on the south-east coast, where lay an isobar of 29·95 inches, the anticyclone in the east had lost one-tenth of an inch, whilst in the west a rise of about two-tenths had taken place owing to the advance of an anticyclone from the west; showers had fallen in the south-west of the Cape Province; on the 22nd, the south-eastern "low" had passed off and the western "high" had advanced eastwards, so that the highest isobar of 30·25 inches covered the west, centre, and south of the Cape, whilst a decrease in pressure had taken place in the north-east; a few local showers had fallen over the south-west of the Cape Province; on the 23rd, it was seen that the "high" had moved to the north-east, so that the rear isobars covered the greater part of the Union, while a fall of two to three tenths had taken place in the south and south-west, the lowest isobar of 30·00 inches lying in the neighbourhood of Mossel Bay, northerly to north-westerly winds indicating a "low" off the south coast; local showers had fallen in parts of Natal, Zululand, and Swaziland; by the 24th, the coastal "low" had pushed further on to land in the south-west, where Cape Agulhas showed the lowest reading of 29·86 inches, a decrease of about half a tenth had taken place in the value of the highest isobar of the north-east anticyclone; and a second anticyclone was lying off the west coast; no rain; on the 25th, the western "high" advanced, the "low" had disappeared, the barometer having risen between three and four tenths in the south and south-west, and by one to two tenths in the south-east; the north-east "high" had remained practically unchanged; light showers had fallen over the south-west of the Cape; by the 26th, the western "high" had advanced, so that its area of highest pressure, 30·40 inches, lay over the east of the Cape, and of the Free State, and Natal, and the south of the Transvaal; pressure decreased northwards to 30·10 inches in the latitude of Windhoek (South-West Africa), local showers occurred at a few stations on the south and east coasts; by the 27th, pressure had fallen by one to two tenths on the east, south, and south-west coasts, and by a few hundredths on the west coast, the highest pressure (30·40 inches) was situated over the Orange Free State and southern half of the Transvaal; the isobars decreased to 30·05 inches south of Mossamedes on the west coast; no rain; on the 28th, conditions were practically the same as on the previous day; no material change having occurred, except for a slight fall in the west; no rain; on the 29th, a further slight fall of half-a-tenth to one-tenth had taken place in the west and a decrease of about two-tenths in the south where lay an isobar of 30·10 inches, whilst another of 30·05 inches was situated on the west coast near Walvis Bay; no rain; on the 30th, a slight further fall had occurred on the south and west coasts as well as a fall between one and two tenths in the east; no rain; on the 31st, a further fall of about a tenth had taken place on the south coast, where the lowest isobar, 29·95 inches, was centred off Knysna, the eastern "high" had decreased by about half a tenth, while another anticyclone in the west showed an isobar of 30·15 inches over the north-west coast of the Cape Province; little precipitation was reported from Cape Agulhas.

Temperature.—The mean temperature during August was 57·8 degrees, or 1·4 degree higher than usual, the excess being mainly due to the mean day temperature (73·2 degrees) being 2·3 degrees, while the mean night temperature (42·4 degrees) was only 0·5 degree higher than the respective normals. An excess in the mean monthly temperature was common to the Transvaal, Natal, and Orange Free State Provinces, while a small deficit was shown by Natal. In the Transvaal, the temperature of the month (57·0 degrees) was 0·6 degree higher than the normal; the Orange Free State with a mean of 52·4 degrees was 1·2 degree warmer than usual, whilst the Cape Province with a temperature of 58·7 degrees for this month, showed the largest excess of 2·7 degrees. Natal, on the other hand, with a mean of 61·0 degrees was 0·4 degree cooler than usual. In the Transvaal. the excess in the temperature of the month was due to the days with 74·9 degrees being 2·2 degrees warmer, while the nights with 39·1 degrees were 1·1 degree cooler than usual. In the Orange Free State, the excess of 1·2 degree in the mean monthly temperature was solely due to the mean day temperature, 69·9 degrees, being 2·5 degrees higher than the normal, while the mean night temperature of 34·9 degrees was 0·1 degree lower than the average. In the Cape Province, the excess of 2·7 degrees in the temperature for the month was mainly due to the days with 72·4 degrees being 3·5 degrees warmer than usual, although the nights with 45·2 degrees were also warmer than normal by 1·9 degree. The shortage of 0·4 degree in the monthly mean for Natal was owing to the mean maximum of 75·2 degrees being 0·9 degree less than the average, whereas the mean minimum, 46·0 degrees, was 0·2 degree higher than usual. Considering the stations separately, it will be seen that the mean monthly temperature was above normal over the Cape Province, the Free State, Basutoland, the greater part of the Transvaal, and the middle parts of Natal. In the Transvaal, the month's temperature was sub-normal over the centre, the middle east and west of the Province, and parts of the south-west, the deficits varying in amount from 0·4 degree at Zeerust to 1·3 degree at Nylstroom: the excesses there ranged from 2·8 degrees at Johannesburg, to 0·1 degree at Middelburg. Mbabane, in Swaziland, showed a surplus of 0·8 degree. In the Orange Free State, the monthly temperatures were above normal by amounts lying between 0·7 degree at Kroonstad and Lindley and 2·4 degrees at Harrismith. In Natal, the means for August were mostly lower than usual, the deficits varying from 0·3 degree at Maritzburg to 2·4 degrees at Estcourt. Excesses of 0·5 degree and 1·6 degree were shown by Weenen and Stanger, respectively, while the temperature at Empangeni was normal. In the Cape Province, the excesses in mean temperature ranged from 0·2 degree at Capetown to 8·5 degrees at Graaff-Reinet, an amount which seems unduly great, although the surplus amounts varied between 4 and 6 degrees in the east and on the Namaqualand plateau. Mafeking, however, showed a deficit of 1·5 degree. The mean day temperatures were above the normal in the Transvaal, Orange Free State, and Cape Provinces, except at a few stations in the two latter, whereas in Natal they were mostly sub-normal by less than 1 degree. The night temperatures were mostly lower than usual over the Transvaal, at about half the stations in the Orange Free State and Natal, but higher than the average over the greater part of the Cape Province. In the Transvaal, the mean maxima were in excess of normal, mostly by amounts between 1½ and 3 degrees, but varying from 0·7 degree at Zeerust to 3·7 degrees at Belfast. The excesses in the case of the night temperatures were generally small, ranging from 0·1 degree at Potchefstroom to 1·9 degree at Johannesburg. The deficits in the Transvaal were frequently much greater, 2–4 degrees, but lying between 0·1 degree at Bloemhof and 5·5 degrees at Belfast. In the Orange Free State, the excess amounts in the mean day temperatures were greatest in the north, centre, and south, and least in the east, ranging from 1·3 degree at Harrismith to 4·1 degrees at Bloemfontein and Kroonstad; Ladybrand, in the east, had a deficit of 0·2 degree. The excesses were confined to the east, amounting to 2·5 degrees and 3·6 degrees at Ladybrand and Harrismith respectively; while the shortages decreased from north to south, being 2·8 degrees at Kroonstad and only 0·4 degree at Bethulie. In Natal, the deficits in the mean day temperatures were mostly less than a degree, but varied from 0·1 degree at Empangeni to 3·5 degrees at Estcourt; Stanger, however, showed a small excess of 0·3 degree. The excesses in the mean night temperatures were mostly about 2 degrees, ranging, however, from 0·1 degree at Empangeni to 2·8 degrees at Stanger: the deficits were generally small, less than a degree, but varying from 0·2 degree at Maritzburg to 3·6 degrees at Dundee. Over the Cape Province, the mean maxima were much higher than usual, as a rule between 3½ and 5 degrees or more, except on or near the coasts, where they were much smaller, mostly between 1 and 2 degrees. The positive departure from normal of the mean day temperatures varied from 0·8 degree at Capetown to 8·7 degrees at Kokstad, while Mafeking was 0·9 degree lower than usual. The excesses of the night temperatures ranged from 0·2 degree at Queenstown to 9·6 degrees at Graaff-Reinet; while the deficits were mostly small, about 1 degree, but lying between 0·2 degree at Capetown and 1·8 degree at Carnarvon.

The mean warmest station during August was Komatipoort, and the mean coolest Belfast, both in the Transvaal, with temperatures of 67·8 degrees and 48·6 degrees, a difference of 19·2 degrees. The mean maxima varied between 85·0 degrees at Komatipoort and 63·8 degrees at Capetown; and the mean minima between 58·2 degrees at Durban (Natal), and 27·4 degrees at Belfast (Transvaal). The highest temperatures of the month were mostly registered between the 29th and 31st, particularly on the last day, although a few extreme maxima were also recorded on the 6th, 17th, 18th, 20th, 21st, 24th to 27th. The lowest temperatures occurred on 1st to 3rd, 5th, 6th, 8th, 9th, 12th to 16th, 18th to 20th, 25th and 26th, most widely on the 13th and 14th. The mean values of the highest and lowest temperatures over the Union were 86·5 degrees and 36·4 degrees, respectively, showing a mean monthly range of 50·1 degrees. The highest temperature recorded was 97·0 degrees at Komati Poort on the 31st, the lowest, 18·0 degrees, at Belfast, on the 13th, an extreme monthly range of 79·0 degrees. Although *frost* was reported practically every day in parts of the high veld, they were mostly light and caused but little damage, except on the 13th, when a sharp frost in the Middelburg Division withered rye that was coming into ear. Elsewhere the frosts were infrequent and slight.

Precipitation.—Rainfall exceeding half-an-inch for the month was confined mainly to the west coast, the south-west, and along the south coast. Small areas with totals between half-an-inch and one inch occurred in patches along the coast of Natal and Zululand, in the south of the Free State and the adjacent portion of the Cape Province, to the east of Graaff-Reinet, and the north and east of Beaufort West and east of Pietersburg. With these exceptions, the interior of the country received only light showers amounting to half-an-inch or less, while a total absence of rain occurred over almost the whole of the Transvaal, the western half of Natal and Zululand, the north-west and a small portion of the north-east of the Free State, the northern half of Bechuanaland, Gordonia, part of the northern border, the centre and portion of the west and south-west of the northern Karroo, and the north-east of Kaffraria, where the "Nil" area was continuous with that in Natal. The largest amounts, between 4½ and 7 inches, occurred in a small area in the south-west, and detached portions with 3–4½ inches were to be found along the south coast, in the south-west, and on the west coast. Two small areas with a few hundredths of an inch, were also to be seen in the northern half of South-West Africa.

Compared with the normal, the rainfall of August was less than usual over the greater part of the country, the exceptional areas being mainly confined to the plateau and coastal portion of Namaqualand, parts of the Mossel Bay and George Divisions on the south coast, the south-west of the Orange Free State, and parts of Philipstown and Britstown in the Cape. The typical stations showed a mean rainfall of 0·45 inch for the Union, being 0·66 inch or 59 per cent. less than the average. The sub-normal areas, as a whole, had a mean of 0·37 inch or 67 per cent. lower than usual, while the much smaller number of stations with supra-normal rainfall had a mean of 1·30 inch or 37 per cent. in excess of the average. As this is usually a month of little or no rainfall over the Union, with the exception of the south-west, south, and west coasts, it may be expected that any excesses over the interior will be small, amounting to only a few tenths of an inch, as was the case during August. Concordia, on the Namaqualand plateau, however, showed a surplus of 1·08 inch or 148 per cent. above the average. Similarly the deficits over the interior were small, usually less than an inch. Thus in the Transvaal the mean was only 0·03 inch, being 0·52 inch or 95 per cent. under the normal. Similarly, the Orange Free State received a mean rainfall of 0·10 inch, which is 0·54 inch or 84 per cent. less than usual, while Natal showed a mean of 0·15 inch, being 0·95 inches or 86 per cent. under the average. The sub-normal areas in the Cape Province showed a mean precipitation of 0·71 inch, which is 0·90 inch or 56 per cent. less than usual. Along the coast, however, the totals for August were frequently sub-normal by 1–2 inches and over the south-west mostly by 2–5 inches; the largest deficit was 4·88 inches or 84 per cent. under the average at Ceres, in the south-west of the Cape. In South-West Africa, the very small quantities registered were everywhere below the normal, which itself amounts to only 0·04 inch, an immaterial quantity. *Thunderstorms* occurred over parts of the Orange Free State and Transvaal during the first half of the month.

The accumulated rainfall since the beginning of the year was largely in excess of the normal over the Union, with the exception of a portion of the south-east of the Transvaal, the south coast, parts of the south-west of the south-east, and of the southern and central Karroos. In South-West Africa, precipitation for this eight month period was also supra-normal by large amounts, Rehoboth, in the centre alone showing a shortage, amounting, however, to 0·22 inch or less than 3 per cent. In the Transvaal, a small deficit of 0·44 inch or 3 per cent. occurred at Ermelo; the excesses were very large, 11·28 inches in the east and north-east, and generally between 4 and 8 inches over the rest of the country, except in the north-west and west, where they fell to between 2 and 3 inches. The surplus amounts varied between 0·90 inch at Bethal and 27·88 inches at Pigeonhole (New Agatha). In the Orange Free State, the excess amounts were greatest, 7–10 inches, in the north-east, east, and south, and decreased to between 1 and 2 inches in the north, centre, and west; they ranged from a surplus of 1·27 inch at Kroonstad to 10·08 inches at Bethulie. As in the eastern and north-eastern Transvaal, the excesses in Natal were mostly very large, exceeding 10 inches in most cases, but lying between 3·45 inches at Weenen and 27·96 inches at Empangeni. In the Cape Province the surplus amounts were much less than in Natal, varying mostly between 4 and 8 inches in the interior, but decreasing to between 2 and 4 inches in the greater portion of the east and part of the south-west, and to less than 2 inches in the west of the northern border area and the central and southern Karroos; the excesses varied between 0·04 inch at Beaufort West and 11·12 inches at Philipstown. The shortages in the more southerly portions of the Province were generally between 2 and 4 inches, but varied from 0·20 inch at Uitenhage to 4·84 inches at Driefontein in the south-west. In South-West Africa the *plus* amounts in the southern half ranged from 0·05 inch at Hierachbis to 11·00 inches at Voigtsgrund, and in the northern half from 0·27 inch at Walvis Bay to 16·43 inches at Rietfontein. The gross totals for the first two months of the second half of the year (viz. July and August) were below the average in the Transvaal, with the exception of the extreme north, in the Orange Free State, and in Natal, except along the coast belt and Zululand. In the Cape Province the aggregate for the two months was lower than usual over Bechuanaland, the greater part of the northern border, the north-east, south-east, and Kaffraria, the south winds generally associated with August. No rain fell, though clouds banked up promisingly on one or two days about the middle of the month. Ploughing goes on, and the ground is still turning up freely with plenty of moisture beneath the surface. Rainfall: Nil.—J. Lyall Soutter.

Barberton.—Dry weather with occasional very hot days. Duststorms were experienced during the month, but the winds were never very strong. Cucumbers and marrows are coming on well, but the need for rain is now very apparent. Rainfall: Nil.—L. W. McClelland.

White River (*Barberton*).—There has been very little cloud this month and one or two slight frosts along the water-ways. The wind has blown mostly from south and west. The mornings have been very calm; towards mid-day the wind has increased slightly, dying down in the evening.—Rainfall: Nil.—M. Lyall Soutter.

Carolina.—A most unusual August, practically no winds and very mild weather, with very little cloud and no rain. The latter part of the month was warm, and the grass commenced growing all over the district. Rainfall: Nil.—G. F. Mynhardt.

Rietvlei No. 102 (*Ermelo*).—A favourable month on the whole, little wind and nice warm weather. Grass plentiful, sheep in rather poor condition. Rainfall: Nil.—P. J. Steenkamp.

Ermelo.—A remarkably mild month. The country is getting dry and rain is needed. Rainfall: Nil.—J. Dean.

Lichtenburg.—District badly in need of rain. Rainfall: 0·06 inch on one day.—The Gaoler.

Middelburg.—Not cold up to 13th, when a sharp frost withered rye which was coming into ear. Wind often variable and mild only during day, often from west in afternoon. After 14th, mild winds often blew from north in afternoon, and sunsets almost always clouds. From middle of month, weather was warm (sometimes even hot) and fine. Grass sprouting up everywhere; trees blossoming (first fruit trees seen on 8th). On the whole this month was a very fine one. Rainfall: Nil.—The Magistrate.

Gembokfontein (*Middelburg*).—With the exception of a few days, frosts were recorded practically every morning during the month. Towards the end the days became exceptionally warm. Veld which was burned on adjoining farm about two months ago is looking very well indeed, and a slight rain now would cause abundance of grazing for stock. Rainfall: Nil.—L. C. Skead.

Piet Retief.—Splendid weather throughout the month. No indication of rain, country getting dry. Rainfall: Nil.—J. Werner.

Potchefstroom (*School of Agriculture*).—August was characterized by generally calm, bright weather, although hazy, there was little cloud. Rainfall: Nil.—D. Moses.

Bralbin (*Rustenburg*).—Weather this month has been normal. The day temperatures are getting higher, but the nights still remain cool. Maximum temperature, 85·0 degrees, minimum, 24·0 degrees. Relative humidity 60 per cent. Rainfall: Nil.—R. S. McPherson.

Wakkerstroom.—We have had lovely weather during August, warm days but cool nights. Grass is springing up everywhere and fruit trees are in bloom. A good shower of rain to help the grass along would be welcome. Cattle are keeping in fair condition. Some few plot-holders on the townlands have done a little ploughing, but I understand that the ground is a little hard for good ploughing. Rainfall: Nil.—J. C. Aspden.

Parktown North (*Johannesburg*).—Light frost on one day only during this month. Weather almost like summer; very little wind and dust. A change set in on the 9th inst., threatening rain but passed over. Slight shower fell in Parkview, but no rain recorded at this station. Rainfall: Nil.—G. S. Garnett.

Groot Vallei (*Standerton*).—Bright hot days, very little wind this month. Slight frosts at nights. Rainfall: Nil.—W. Garnett.

Weltevreden (*Standerton*).—Very mild month, no rain, no wind. Stock looking well and ploughing goes on. Rainfall: Nil.—D. Lane.

Zomeshoek (*Wakkerstroom*).—In the beginning of August the days were warm and the nights cold. There is plenty of grass for sheep. It is thirty years since green grass was seen in the eastern high veld during this month. Rainfall: Nil.—T. L. Moller.

Klipfontein (*Wolmaransstad*).—Mild days with little frost. Crops excellent. some farmers are still busy reaping. Thousands of bags have still to be thrashed. Rainfall: Nil.—S. van Heerden.

Doornkloof (*Zoutpansberg*).—Cattle in good condition and veld fair. Rainfall: Nil.—S. M. Ralston.

Thornloe (*Zoutpansberg*).—Nothing unusual, wind every second or third day, generally from east to north-east, sometimes varying to south-east. Generally not above three in force. Occasional frosts. The weather became distinctly warmer during the latter part of the month. Rainfall: Nil.—H. L. Brent.

Klippan (*Lichtenburg*).—For September, October, November, and December, the rainfall was about 5 inches less across the northern portion of my veld, that is, above the main road. My maize operations started on 10th November, and with stoppages, ended on 23rd December, giving me twenty-one working days. January and February was the worst period. I could not put in potatoes, beans, or forage. During March, April, and May, I prepared 160 morgen of new ground and some 200 old lands. My crop is a big failure, some portions yielding two bags a morgen, and the quality all round poor. My dams and pans are just drying up. Cattle in bad condition during the whole year. Sheep dying off the whole winter. At present the veld is in full spring and green grass growing vigorously. The scarcity of winds during August was most conspicuous. Rainfall: 0·06 inch on one day.—P. H. Fischer.

Badfontein (*Lydenburg*).—Strong east winds every afternoon and light frosts every morning. Winter crops are promising very well. Rainfall: Nil.—L. Parker.

Elandsfontein (*Potchefstroom*).—Water for irrigation is plentiful, and crops splendid. The farmers' eyes are turned to General Kemp for protection against locusts. Rainfall: Nil.—P. Davidtz.

Doornkom No. 896 (*Rustenburg*).—Every prospect of a good winter crop. Wheat splendid. Rainfall: Nil.—G. J. Taylor.

Krugersdorp (*Witwatersrand*).—The month of August has been ideal from a climatical point of view. Temperatures have been normal and the absence of wind with its accompanying dust has been a pleasant but unusual feature. A very fine display of fruit blossoms is in evidence at time of writing. Average rainfall for past twenty-two years is 0·55 inch. Rainfall: Nil.—H. Sharp.

Jackalsfontein (*Zoutpansberg*).—Generally calm and equable, hotter towards the end of the month. Rainfall: Nil.—Rev. J. C. Palmer.

Pietersburg (*Zoutpansberg*).—Heavy late frosts. Bright days and cold nights. Very little wind and absence of duststorms remarkable. Rainfall: Nil.—W. Frankelyne.

Arbury (*Rustenburg*).—The last frost occurred on the 13th, last year being 22nd. Very few windy days for the recognized windy and dusty month of the year. The highest temperature was recorded on the 30th and 31st, and the lowest on 13th. Rainfall: Nil.—J. Childs.

Mooivlei (*Ermelo*).—August this year has proved very mild and has provided us with excellent reaping weather. Rainfall: Nil.—G. T. Beveridge.

Mbabane (*Swaziland*).—The weather has been exceptionally hot for August, and the country is badly in need of rain. Sheep are in poor condition and the trek to the high veld will be somewhat delayed. Rainfall: 0·18 inch on one day.—Swaziland Police.

ORANGE FREE STATE.

Groenvlei (*Frankfort*).—The weather during this month has become considerably warmer; cold snaps occurred off and on. Remarkable absence of wind and dust. Rain accompanied by lightning and thunder fell on two days, registering 0·29 inch, a very narrow strip being affected. Green grass coming along fast. Stalk grazing finished, veld grazing very poor. Stock in fair condition. No diseases.—B. Stollreither.

Lindley.—Stock in good condition; exceptionally warm month for this district. Very little wind and no dust. Rainfall: 0·03 inch on one day.—W. Murphy.

Kroonstad.—Perfect weather, practically no winds except on 11th, when there fell a few drops of rain with cool wind and dust; lightning in evening. Rainfall: Nil.—A. C. Mason.

Whites (*Winburg*).—A fine bright month, temperature normal, no rain, very little wind.—A. F. Clarke.

Legpan (*Luckhoff*).—The whole month was clear and warm, only on the 9th we had some light showers accompanied by lightning and thunder. Rainfall: 0·20 inch on one day.—H. C. Ferreira.

Prospect (*Vrede*).—The weather for the most part has been mild with less frost than usual. Towards end of month especially the days have been warm and summerlike. All kinds of stock look well. Sheep are leaving mealie-lands before stalks have been finished, as the veld is coming on so well. Rainfall: Nil.—Thomas Pitcairn.

Shannon (*Bloemfontein*).—Latter part of the month very hot during the day and cool at night. Forest trees are commencing to grow and early varieties of fruit trees are in full bloom. Soil still contains plenty of moisture. Rainfall: 0·18 inch on one day.—J. Hatchard.

NATAL.

Hillary.—Hours of bright sunshine—a record for the month at this station. Maximum and minimum shade temperatures both above the average. Rainfall: 0·31 inch on four days, the lowest recorded since 1909, when there was no rain.—H. A. Thorpe.

Ismont (*Mid-Illovo*).—An exceptionally dry August. Rain badly needed to bring on the young grass. Cattle in fair condition. Rainfall: 0·03 inch on two days.—Lt.-Col. J. W. Montgomery.

Southfield (*Greytown*).—An extraordinary calm month for August, young grass coming along nicely; a soft warm rain would be very welcome. Not very hopeful weather for rain. Rainfall: 0·06 inch on one day.—J. M. Handley.

Strathearn (*Weenen*).—Very dry. Less windy than usual in August. Veld grass good; there is enough for all classes of stock. Rainfall: 0·01 inch on one day.—Miss E. Smythe.

Cape St. Lucia (*Lighthouse*).—A dry month with strong north-easterly winds and hazy most days. Stock are in fair condition. Rainfall: 0·37 inch on four days.—J. Murphy.

Hillcrest (*Illovo*).—Fine weather all month; night dews frequent, sometimes heavy. Health in district good. Wattle in full bloom at end of month. Peach and plums in flower. Light mists at night towards end of month. Rainfall: 0·38 inch on seven days.—T. Dawson Clothier.

Dundee.—Contrary to expectations after the warm rain on 20th July, August has been very dry, although otherwise a very pleasant month. A good soaking rain is badly needed now. Rainfall: Nil.—W. Thorrold.

Durban (*Point*).—Weather throughout generally fair. Hazy in morning and heavy dew at night. Rainfall below the average for thirty-five years. Rainfall: 0·45 inch on four days.—The Port Captain.

Ladysmith.—Other than the preceding months of August, this month has been a very calm and hot one. Stock wintered well. Rain very badly needed. Rainfall: Nil.—F. R. Hillebrand.

Pietermaritzburg (*Mental Hospital*).—The month has been dry and warm and the district is commencing to suffer from drought. Rainfall: 0·01 inch on one day.—The Staff.

Middleton.—Atmosphere very hazy through grass fires and no high winds to clear the air. Temperature very high for August. Spring set in. Pasture still plentiful, but if heat continues and no rain falls during coming fortnight position will become serious. Rainfall: Nil.—O. L. Nel.

Rongpoort.—Very excellent month; no frost; warm days and pratically no winds. Young grass in plenty for sheep by the 22nd. Rainfall: Nil.—J. H. Bartholomew.

CAPE PROVINCE.

Vryburg.—This month has been remarkable for total absence of clouds, both day and night. Summer conditions are fast coming in and owing to no wind the rain which is required holds off. Fruit trees are in bud and winter conditions appear to have passed. Rainfall: 0·04 inch on two days.—Sergt. H. White.

Upington (*Gordonia*).—It was exceptionally hot for August; cattle, sheep, etc., still in fair condition. Fruit trees in full blossom. Veld still in good condition. Rainfall: 0·09 inch on one day.—W. J. Schmidt.

Carnarvon.—Warm days, cold frosty nights, very little wind for August; veld one glorious flower garden. Rainfall: 0·09 inch on one day.—A. P. Malherbe.

Kraaipan (*Mafeking*).—Although we have had no rain for nearly three months, the veld is good and the young grass is coming on well. Cattle all in good condition; very little sickness amongst them. Ranfall: Nil.—P. J. Hart.

Vruchtbaar (*Paarl*).—Rainfall low, but weather fine for the early blossoming kinds of fruits; all varieties of fruit trees show well for good crops. Rainfall: 1·76 inch on six days.—P. J. Cillie (C.'s son).

Ovendale (*Willowmore*).—Warm summer weather, crops doing well, but showing signs of getting dry in parts. Rainfall: 0·25 inch on two days.—J. S. Kilian.

Groot Vlakte (*Calvinia*).—Fields are excellent for grazing, stock in prime condition, crops very promising, though still quite young. Rainfall: 0·56 inch on three days.—N. Louw.

Ezelsfontein (*De Aar*).—Veld good, crops progressing favourably, stock in very good condition. Blow-flies very bad, especially with longwool and lambing ewes. This pest is becoming very serious, as the loss through it is assuming vast proportions and serious steps will have to be taken to combat the pest. Rainfall: 0·14 inch on three days.—W. S. Marais.

Draaifontein (*Richmond*).—Crops fine on account of soft rains earlier in the year. Rainfall: 0·33 inch on one day.—J. Cilliers.

Palapye Road.—Cattle in good condition, veld excellent for this time of year. Grain crops have now been reaped, mealie crop reported to be excellent. Rainfall: Nil.—T. Shaw.

Louisvale (*Kenhardt*).—An exceptionally warm month for the time of the year. The veld is good and stock are fat; farmers are anticipating an early crop and prosperous season. Rainfall: Nil.—Stuart Smith.

Tsolo.—Veld very dry, cattle are suffering. Rainfall: Nil.—H. P. Tilland.

Nelspoort (*Beaufort West*).—Veld is in very good condition and covered with a great variety of flowers; in some parts mesembryanthemums form a carpet of purple. Rainfall: 0·42 inch on two days.—P. Allan, M.D.

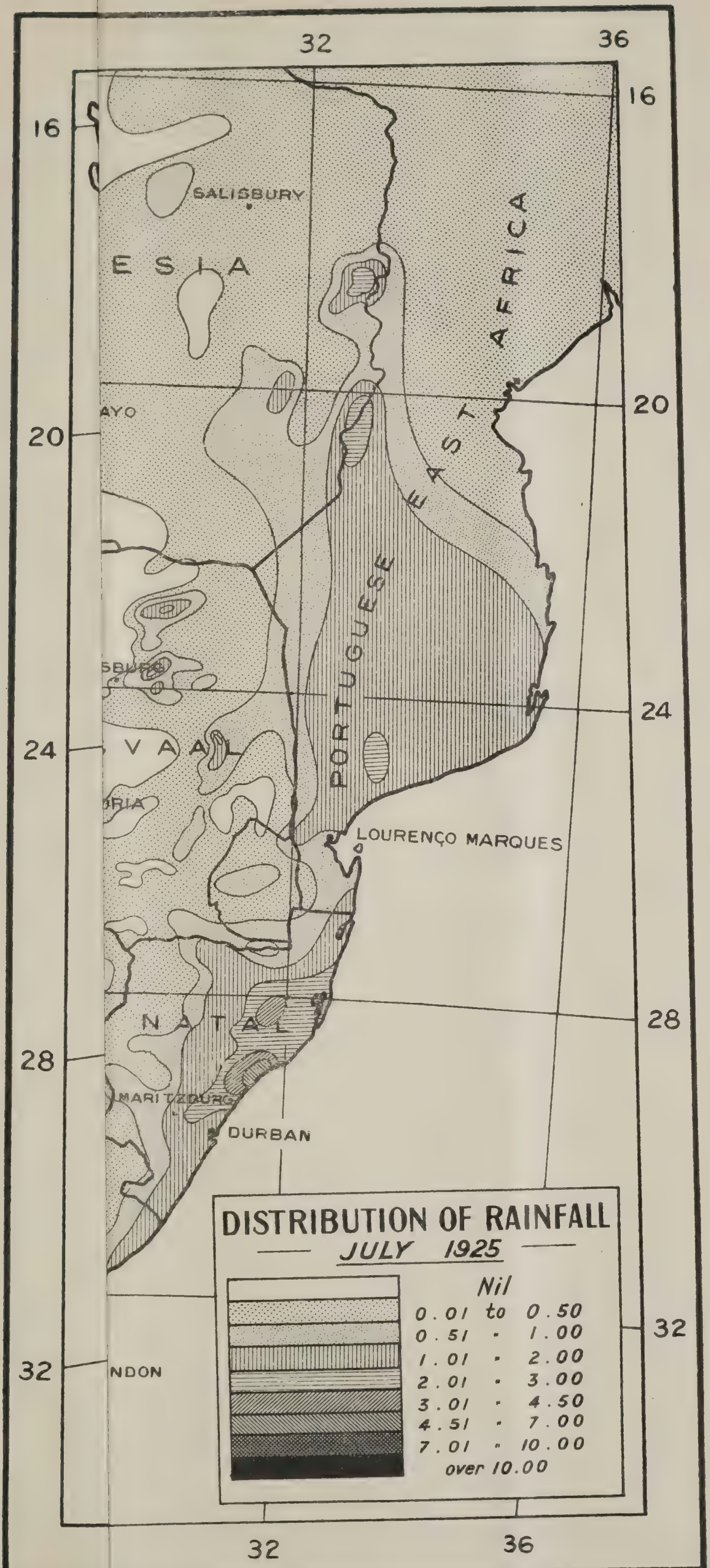
Riversdale.—We have had no exceptional cold weather; it looks as if summer has started early. The maximum and minimum temperatures exceed those of August last year by 17·3 degrees and 12·6 degrees respectively. The crops need rain badly. Rainfall: 0·74 inch on two days.—M. Johnson.

WEATHER CHARACTERISTICS FOR THE MONTH OF OCTOBER.

The month of October marks the firm establishment of the inland rainy season and a general increase in the intensity of precipitation throughout the Union. In the south-west of the Cape and over the Peninsula, however, the tendency is in the opposite direction, while over the southern and western coastal districts there should be but little change from the preceding month. The heaviest rainfall should now be experienced in Zululand, Swaziland, and Natal, where the normals are about 3·5 inches. The Cape Peninsula receives an average of about 3 inches; Basutoland, the Transvaal eastern border, and the south-eastern coastal districts, 2·5 inches; the south coast and the south west of the Cape Province, 2 inches; the Transvaal high veld, Orange Free State, and east central Karroo, 1·5 inch; and the remainder of the Union less than 1 inch. A mean monthly air temperature of 68 degrees occurs in Natal, and 67 degrees in the eastern Transvaal and the northern borders of the Cape Province. The normal in Kaffraria is about 61 degrees; in the Cape coastal districts, 62 degrees; on the Peninsula, 60 degrees; and in the south-west, 61 degrees. On the high veld, the mean temperature should range from 63 degrees in the Transvaal and Orange Free State to 60 degrees in Basutoland and on the northern Karroo. Frosts are unusual. Of the total possible number of hours of bright sunshine, about 80 per cent. should be enjoyed over the northern border of the Cape Province, 58 per cent. in the south-eastern districts, 61 per cent. on the Peninsula, and 65 per cent. in the Transvaal. During this month the winds over the east and interior of the country attain their maximum velocity, whilst over the south-west they are also increasing in force. Compared with the previous month, there is a general decrease in frequency at all stations of those winds blowing between north and north-west, and a general increase of southerly and south-westerly breezes and of north-easterly winds in addition over the summer-rainfall area. The prevailing wind directions are south-south-west at Kimberley, north at Johannesburg, north-east at East London, and southerly at Capetown. During October, destructive hailstorms are of frequent occurrence, affecting wide areas.

AIR TEMPERATURES (SELF-REGISTERING THERMOMETERS IN THERMOMETER-SCREENS), AUGUST, 1925.

Place.	Observer.	Mean Maximum Temperature.	Mean Minimum Temperature.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
Transvaal—		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Barberton	L. W. McClelland	79·1	51·8	65·4	63·4	+ 2·0	90·0	30th	45·0	2nd.
Belfast	The Forester	69·8	27·4	48·6	49·5	— 0·9	79·0	31st	18·0	13th.
Bloemhof	S.A. Police	73·9	35·0	54·4	53·9	+ 0·5	82·2	31st	28·0	14th and 15th.
Ermelo	J. Dean	70·7	35·8	53·3	52·6	+ 0·7	78·4	31st	24·6	13th.
Johannesburg (Observatory)	The Staff	69·0	45·8	57·4	54·6	+ 2·8	77·7	31st	35·4	13th.
Klerksdorp (Strathmore)	C. Scott	75·0	34·2	54·6	55·5	— 0·9	83·0	30th and 31st	24·0	14th.
Komati Poort	A. H. White	85·0	50·7	67·8	67·4	+ 0·4	97·0	31st	39·0	3rd.
Louis Trichardt	C. L. Cope	74·9	45·7	60·3	60·0	+ 0·3	84·0	18th	38·0	5th.
Middelburg	The Magistrate	73·5	34·3	53·9	53·8	+ 0·1	85·0	29th	26·0	13th.
Nylstroom	G. Bakker	76·1	37·3	56·7	58·0	— 1·3	85·0	31st	31·0	2nd.
Pietersburg	W. Frankelyne	76·2	39·5	57·8	57·6	+ 0·2	87·0	31st	33·0	2nd and 3rd.
Piet Retief	J. Werner	73·0	43·2	58·1	56·9	+ 1·2	84·6	30th	30·0	8th.
Pigeonhole (New Agatha)	J. McCallum	67·9	49·9	58·9	—	—	75·0	17th and 31st	45·0	2nd and 3rd.
Pilgrims Rest	E. M. Skea	74·8	38·2	56·5	56·1	+ 0·4	84·5	30th	30·0	2nd and 3rd.
Potchefstroom (Exp. Farm)	The Manager	73·7	35·5	54·6	54·0	+ 0·6	80·5	30th	24·2	14th.
Pretoria (Meteorological Office)	The Staff	76·8	40·9	58·8	56·6	+ 2·2	86·2	31st	35·0	13th
Rustenburg	A. Streatfeild	77·1	39·5	58·3	59·4	— 1·1	86·0	26th	29·0	13th.
Standerton	The Magistrate	73·1	31·1	52·1	50·0	+ 2·1	83·0	26th	19·5	13th.
Zeerust	H. Dietrich	75·1	37·3	56·2	56·6	— 0·4	85·0	31st	28·0	13th.
Swaziland—										
Mbabane	Swaziland Police	73·5	45·0	59·3	58·6	+ 0·7	85·0	30th	36·0	1st.
Orange Free State—										
Bethulie	J. J. Wardhaugh	70·9	35·6	53·3	52·0	+ 1·3	79·0	31st	26·0	5th.
Bloemfontein	G. A. Schepers	71·0	34·7	52·8	51·9	+ 0·9	79·4	31st	25·7	13th.
Harrismith	The Forester	65·6	37·2	51·4	49·0	+ 2·4	76·0	30th	26·5	14th.
Kroonstad	A. C. Mason	73·4	32·4	52·9	52·2	+ 0·7	81·0	29th	24·0	13th.
Ladybrand	The Forester	66·8	37·9	52·4	51·2	+ 1·2	75·0	29th	28·0	14th.
Lindley	J. Murphy	71·5	31·9	51·7	51·0	+ 0·7	79·0	29th	20·5	14th.
Natal—										
Dundee	W. Thorrold	75·0	39·0	57·0	58·3	— 1·3	85·0	25th	28·0	13th.
Durban (Point)	The Port Captain	72·9	58·2	65·6	66·0	— 0·4	78·2	31st	52·8	13th.
Empangeni	The Forester	76·6	53·7	65·2	65·2	± 0·0	92·0	21st	44·0	19th.
Estcourt	The Town Clerk	70·5	38·5	54·5	56·9	— 2·4	83·0	26th	31·0	15th.
Hlabisa	E. E. Redgrove	—	—	—	65·6		—	—	—	—
Ladysmith	F. R. Hillebrand	76·4	40·9	58·7	59·4	— 0·7	86·0	30th	34·0	9th, 13th, 14th and 15th.
Maritzburg (Mental Hospital)	The Staff	76·3	47·8	62·1	62·4	— 0·3	88·0	30th	41·0	6th, 14th, and 16th.
Stanger	C. C. Foss	77·2	56·4	66·8	65·2	— 1·6	94·0	21st	52·0	9th and 15th.
Weenen	The Gaoler	76·4	40·5	58·5	58·0	+ 0·5	88·0	27th	33·0	2nd, 3rd, and 15th.

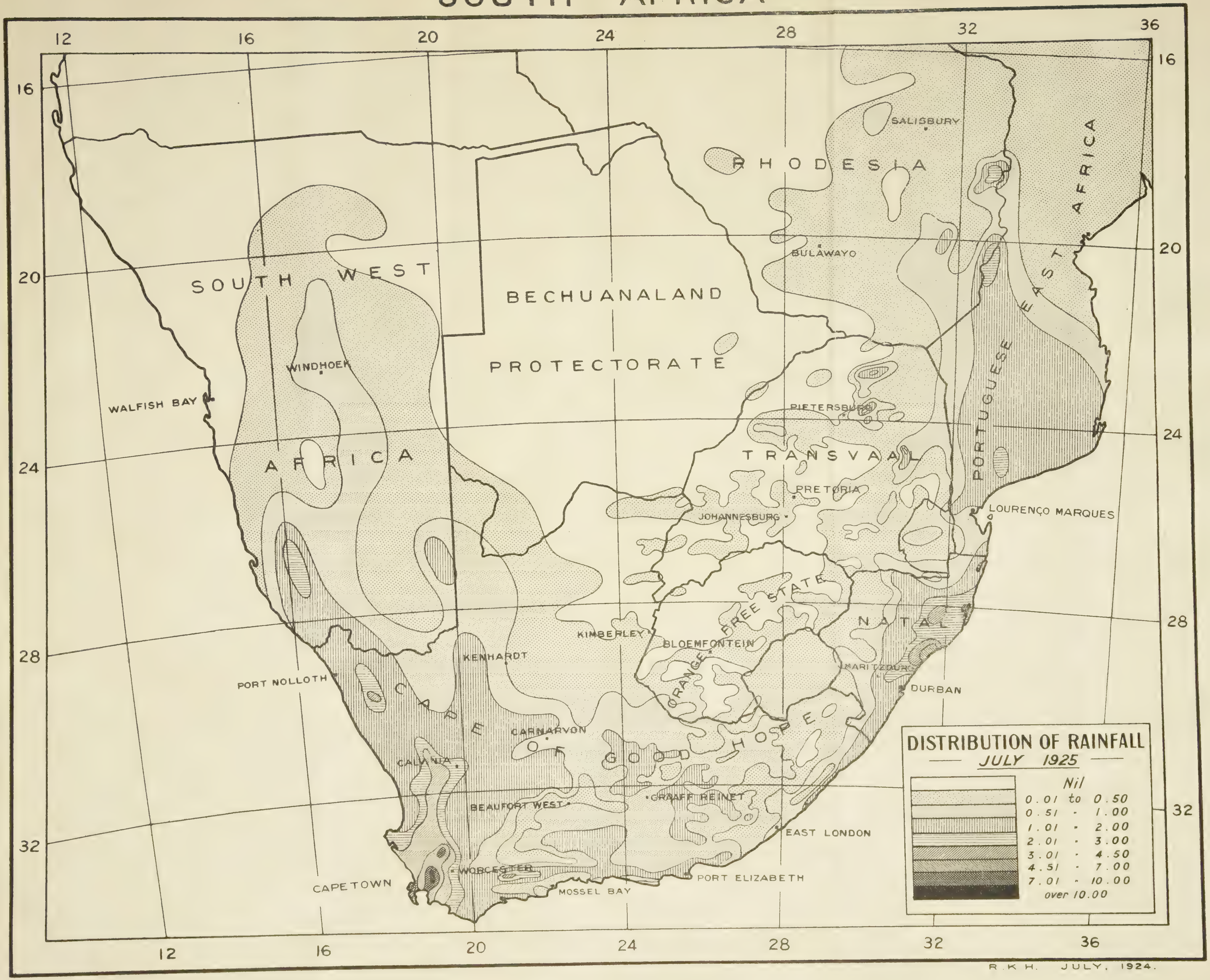


DISTRIBUTION OF RAINFALL

JULY 1925

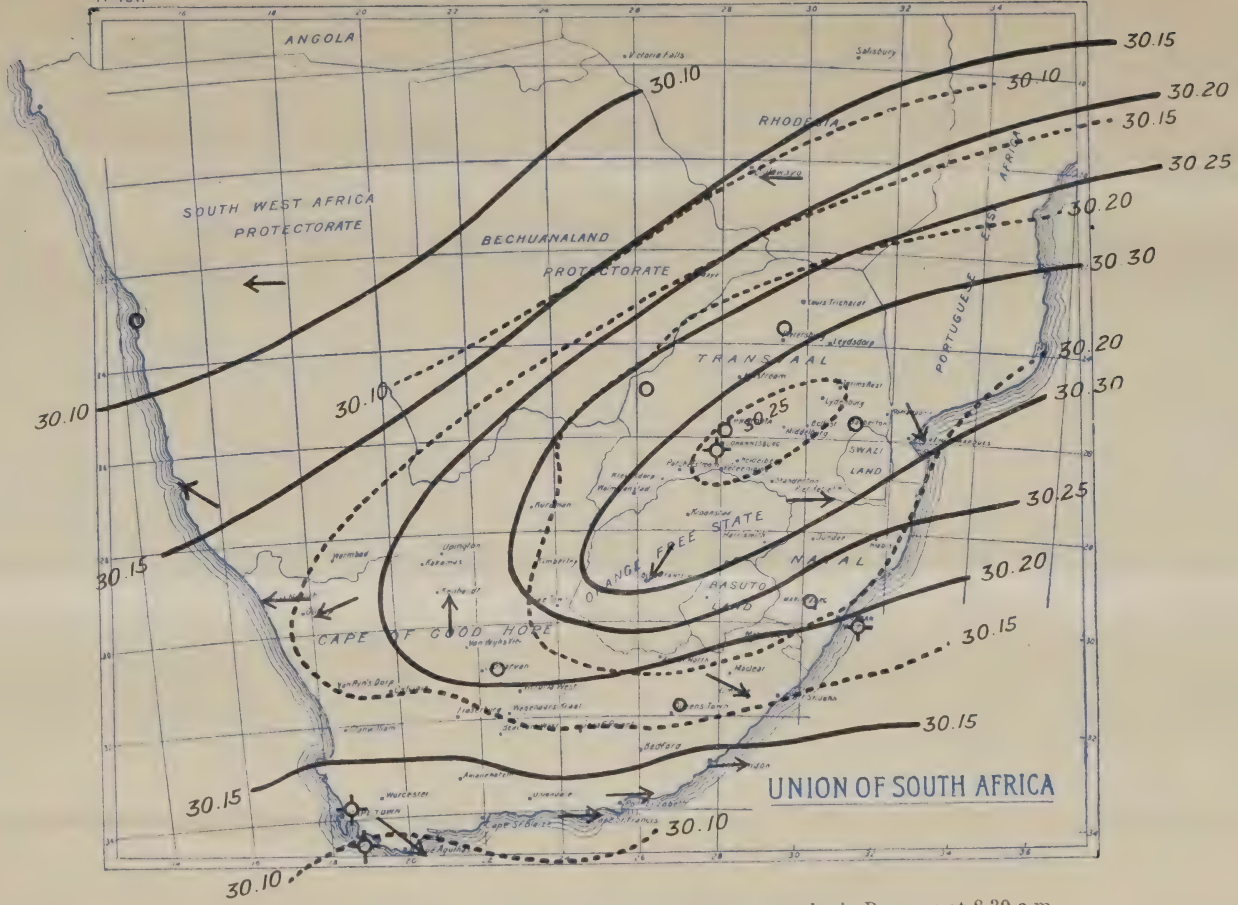
R.K.H. JULY. 1924.

SOUTH AFRICA



R.K.H. JULY, 1924.

N°101.



August, 1925. Prevailing Winds and Mean Atmospheric Pressure at 8.30 a.m.
The dotted lines indicate the normal distribution for August.

AIR TEMPERATURES, August, 1925—(*continued*).

Place.	Observer.	Mean Maximum Temperature.	Mean Minimum Temperature.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Cape Province—										
Aliwal North	A. Alcock	71·0	33·1	52·0	50·9	+ **1·1**	79·5	31st	26·5	8th.
Bedford	T. C. Hall	—	—	—	57·0	—	—	—	—	—
Capetown (Royal Observatory)	The Staff	63·8	47·9	55·8	55·6	+ 0·2	76·7	20th	42·0	2nd.
Carnarvon	A. P. Malherbe	69·7	35·2	52·4	51·2	+ 1·2	79·0	29th, 30th, and 31st.	26·0	14th.
Clanwilliam	C. B. van Zijl	74·7	45·0	59·8	55·8	+ 4·0	94·5	29th	39·0	14th, 20th and 26th.
East London	The Port Captain	72·5	56·5	64·5	60·9	+ 3·6	96·0	24th	45·0	5th.
Graaff-Reinet (Convent)	The Mother Superior	77·4	50·5	64·0	55·4	+ 8·6	91·5	30th	39·2	13th.
Grahamstown	The Vet. Res. Officer	72·6	42·6	57·6	56·4	+ 1·2	89·4	29th and 31st	33·2	14th.
Groot Drakenstein	A. L. Franceys	67·8	45·6	56·7	54·4	+ 2·3	87·0	29th	39·0	12th and 25th.
Kenhardt	A. Seydell	76·8	40·6	58·7	55·8	+ 2·9	88·0	31st	33·0	14th, 18th, and, 19th.
Kimberley	C. H. Dowler	76·0	41·7	58·8	55·5	+ 3·3	85·0	31st	32·0	2nd, 3rd, 13th, and 14th.
Kingwilliamstown	W. Kindness	76·8	46·3	61·6	59·5	+ 2·1	94·0	29th	38·0	15th.
Kokstad	H. D. Coyte	72·9	36·1	54·5	49·8	+ 4·7	82·0	29th	26·0	14th and 15th.
Mafeking (Convent)	The Mother Superior	75·1	41·2	58·2	59·7	— 1·5	85·0	31st	29·8	13th.
Mossel Bay (Cape St. Blaize)	The Lightkeeper	67·6	53·1	60·4	58·0	+ 2·4	88·0	24th	47·0	13th.
Murraysburg	—	—	—	—	—	—	—	—	—	—
O'okiep	H. T. Wyles	69·2	49·9	59·6	53·8	+ 5·8	83·1	30th	37·9	13th.
Port Elizabeth	The Lightkeeper	70·3	52·1	61·2	59·3	+ 1·9	92·0	24th	45·0	5th and 6th.
Port Nolloth	The Lightkeeper	64·1	47·1	55·6	54·2	+ 1·4	93·5	6th	41·0	3rd.
Port St. Johns	The Lightkeeper	73·8	58·3	66·0	61·6	+ 4·4	84·0	30th	53·0	14th.
Queenstown	H. Holley	74·0	39·8	56·9	53·4	+ 3·5	83·0	29th	30·0	5th and 15th.
Somerset East	C. Harris	—	—	—	56·6	—	—	—	—	—
Stutterheim	F. C. Bousfield	—	—	—	56·2	—	—	—	—	—
Sydney's Hope	Rev. S. Rippon	68·8	50·1	59·4	56·3	+ 3·1	88·0	29th and 31st	41·0	13th.
Uitenhage	H. Inggs	76·1	46·6	61·4	59·4	+ 2·4	96·0	31st	35·5	15th.
Umtata	B. J. Hackitt	77·9	40·9	59·4	57·0	+ 2·4	89·8	29th	32·3	14th.
Vryburg	Sergt. H. White	74·6	36·1	55·4	52·7	+ 2·7	82·0	30th and 31st	27·0	19th.
Wynberg (Convent)	The Mother Superior	66·9	49·0	58·0	56·6	+ 1·4	80·8	20th and 31st	42·5	13th.
Basutoland—										
Mafeteng	F. Hodgson	64·9	38·8	51·8	50·1	+ 1·7	73·0	30th and 31st	29·0	14th.

RAINFALL, AUGUST, 1925.

Station.	Observer.	August, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1925.	Normal.	Difference from Normal.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Transvaal—										
Barberton	L. W. McClelland	0·00	0·58	— 0·58	24·42	18·65	+ 5·77	0·00	0·88	— 0·88
Belfast	The Forester	0·00	0·55	— 0·55	23·20	17·33	+ 5·87	0·50	0·81	— 0·31
Bethal	H. Joubert	0·00	0·62	— 0·62	15·69	14·79	+ 0·90	0·21	0·79	— 0·58
Bloemhof	S.A. Police	0·08	0·32	— 0·24	—	12·46	—	0·08	0·64	— 0·56
Claremont	S.A. Police	0·00	0·40	— 0·40	13·47	11·19	+ 2·28	0·00	0·44	— 0·44
Ermelo	The Forester	0·00	0·76	— 0·76	15·15	15·59	— 0·44	0·11	1·04	— 0·93
Haenertsberg	S.A. Police	0·00	0·30	— 0·30	42·78	25·25	+17·53	0·00	0·87	— 0·87
Heidelberg	W. ter Horst	0·07	0·53	— 0·46	—	15·19	—	0·07	0·84	— 0·77
Johannesburg (Observatory)	The Staff	0·06	0·58	— 0·52	21·67	17·26	+ 4·41	0·24	0·91	— 0·67
Joubert Park	The Supt. of Parks	0·09	0·52	— 0·43	25·27	19·33	+ 5·94	0·35	0·85	— 0·50
Klerksdorp (Strathmore)	C. Scott	0·02	0·40	— 0·38	18·54	14·21	+ 4·33	0·10	0·73	— 0·63
Komati Poort	A. H. White	0·00	0·50	— 0·50	29·93	18·55	+11·38	0·15	0·81	— 0·66
Louis Trichardt	C. L. Cope	0·03	0·25	— 0·22	39·60	18·93	+20·67	1·24	0·74	+ 0·50
Middelburg	The Magistrate	0·00	0·48	— 0·48	—	15·43	—	0·00	0·57	— 0·57
Nylstroom	G. Bakker	0·00	0·48	— 0·48	22·09	14·79	+ 7·30	0·00	0·68	— 0·68
Pietersburg	W. Frankelyne	0·00	0·24	— 0·24	15·16	11·85	+ 3·31	0·18	0·47	— 0·29
Piet Retief	J. Werner	0·00	0·77	— 0·77	25·78	19·37	+ 6·41	0·57	1·12	— 0·55
Pigeonhole (New Agatha)	J. McCallum	0·00	0·51	— 0·51	58·11	30·23	+27·88	1·18	1·38	— 0·20
Pilgrims Rest	E. M. Skea	0·00	0·57	— 0·57	44·78	26·70	+18·08	0·13	0·95	— 0·82
Potchefstroom (Exp. Farm)	The Manager	0·00	0·46	— 0·46	20·96	13·44	+ 7·52	0·23	0·78	— 0·55
Pretoria (Meteorological Office)	The Staff	0·00	0·55	— 0·55	24·37	16·70	+ 7·67	0·35	0·78	— 0·43
Rooiberg	N. H. Munro	0·00	0·66	— 0·66	17·11	15·11	+ 2·00	0·00	0·94	— 0·94
Rustenburg	A. Streatfield	0·00	0·56	— 0·56	22·67	15·45	+ 7·22	0·14	0·96	— 0·82
Standerton	The Magistrate	0·00	0·70	— 0·70	—	15·91	—	0·08	1·04	— 0·96
Wakkerstroom	J. C. Aspden	0·00	0·85	— 0·85	21·99	18·06	+ 3·93	0·25	1·24	— 0·99
Woodbush I.	The Forester	0·22	0·97	— 0·75	72·71	47·19	+25·52	1·88	1·96	— 0·08
Zeerust	H. Dietrich	0·00	0·23	— 0·23	23·04	14·63	+ 8·41	0·05	0·46	— 0·41
Swaziland—										
Mbabane	Swaziland Police	0·18	1·18	— 1·00	61·29	31·38	+29·91	0·42	1·85	— 1·43
Orange Free State—										
Bethulie	J. J. Wardaugh	0·05	0·47	— 0·42	22·32	12·24	+10·08	0·46	0·83	— 0·37
Bloemfontein	G. A. Schepers	0·25	0·52	— 0·27	16·48	14·77	+ 1·71	0·27	0·88	— 0·61
Boshof	E. W. Milton	0·00	0·66	— 0·66	14·87	13·06	+ 1·81	0·00	0·97	— 0·97
Harrismith	The Forester	0·23	0·81	— 0·58	23·78	16·68	+ 7·10	0·46	1·16	— 0·70
Kroonstad	A. C. Mason	0·00	0·51	— 0·51	16·38	15·11	+ 1·27	0·02	0·80	— 0·78
Ladybrand	The Forester	0·15	0·76	— 0·61	24·63	16·54	+ 8·09	0·25	1·26	— 1·01
Lindley	The Gaoler	0·03	0·47	— 0·44	21·08	14·31	+ 6·77	0·07	0·77	— 0·70

RAINFALL, AUGUST, 1925—(*continued*).

Station.	Observer.	August, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1925.	Normal.	Difference from Normal.
Natal—		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Dundee	W. Thorrold	0·00	0·86	− 0·86	26·26	18·75	+ 7·51	0·35	1·09	− 0·74
Durban (Point)	The Port Captain	0·48	1·59	− 1·11	37·12	23·59	+13·53	3·13	2·80	+ 0·33
Empangeni	The Forester	0·55	1·71	− 1·16	62·33	27·96	+34·37	4·26	3·79	+ 0·47
Estcourt	The Town Clerk	0·00	0·70	− 0·70	32·05	17·53	+14·52	0·70	0·96	− 0·26
Hlabisa	E. E. Redgrove	0·24	1·20	− 0·96	72·31	24·93	+47·38	3·79	2·11	+ 1·68
Howick	The Gaoler	0·07	0·92	− 0·85	32·21	19·55	+12·66	0·75	1·24	− 0·49
Ladysmith	F. R. Hillebrand	0·00	0·92	− 0·92	34·35	17·34	+17·01	0·45	1·12	− 0·67
Maritzburg (Mental Hospital)	The Staff	0·01	0·99	− 0·98	34·59	21·35	+13·24	1·08	1·34	− 0·26
Stanger	C. C. Foss	0·19	1·31	− 1·12	43·09	22·55	+20·54	2·44	2·39	+ 0·05
Vryheid	The Gaoler	1·55	0·75	+ 0·80	30·64	19·36	+11·28	2·95	1·12	+ 1·83
Weenen	The Gaoler	0·00	0·82	− 0·82	19·69	16·24	+ 3·45	0·27	1·00	− 0·73
Cape Province—										
Aliwal North	A. Alcock	0·54	0·73	− 0·19	27·15	13·74	+13·41	0·91	1·14	− 0·23
Beaufort West	The Gaoler	0·23	0·31	− 0·08	6·70	6·66	+ 0·04	0·67	0·58	+ 0·09
Bedford	T. C. Hall	—	0·91	—	—	17·13	—	—	1·56	—
Britstown	S.A. Police	0·24	0·21	+ 0·03	16·89	8·66	+ 8·23	0·91	0·45	+ 0·46
Calvinia	The Gaoler	0·67	0·87	− 0·20	12·85	6·52	+ 6·33	3·17	1·78	+ 1·39
Capetown (Royal Observatory)	The Staff	1·56	3·37	− 1·81	17·65	19·54	− 1·89	5·56	7·06	− 1·50
Ceres	The Gaoler	0·96	5·84	− 4·88	—	30·59	—	8·29	11·91	− 3·62
Carnarvon	A. P. Malherbe	0·09	0·31	− 0·22	13·20	6·17	+ 7·03	1·06	0·52	+ 0·54
Clanwilliam	The Gaoler	0·95	1·11	− 0·16	12·09	6·83	+ 5·26	3·40	2·50	+ 0·90
Concordia	F. Carstens	1·81	0·73	+ 1·08	13·46	5·10	+ 8·36	4·65	1·40	+ 3·25
Driefontein (French Hoek)	The Forester	5·28	10·00	− 4·72	54·79	59·63	− 4·84	17·50	20·83	− 3·33
East London	A. Downie	0·49	1·98	− 1·49	23·52	19·70	+ 3·82	1·07	3·21	− 2·14
Fraserburg	The Gaoler	0·11	0·32	− 0·21	8·45	5·32	+ 3·13	1·77	0·61	+ 1·16
Grahamstown	The Vet. Res. Officer	0·61	1·56	− 0·95	13·82	16·93	− 3·11	0·98	2·70	− 1·72
Garies	The Gaoler	—	0·75	—	—	3·93	—	—	1·46	—
Graaff-Reinet (Convent)	The Mother Superior	0·37	0·52	− 0·15	10·17	9·13	+ 1·04	1·22	0·95	+ 0·27
Groot Drakenstein	A. L. Franceys	1·98	4·73	− 2·75	—	26·99	—	11·16	9·98	+ 1·18
Griquatown	The Gaoler	0·00	0·25	− 0·25	16·29	9·67	+ 6·62	0·40	0·46	− 0·06
George (Rectory)	Rev. Canon B. Price	2·77	2·43	+ 0·34	19·33	21·69	− 2·36	3·68	4·03	− 0·35
Hanover	The Gaoler	0·23	0·33	− 0·10	13·95	9·83	+ 4·12	1·02	0·70	+ 0·32
Hopetown	The Gaoler	—	0·25	—	—	9·31	—	—	0·51	—
Kenhardt	R. Seydell	0·00	0·16	− 0·16	5·98	4·59	+ 1·39	0·59	0·36	+ 0·23
Kimberley	C. H. Dowler	0·17	0·28	− 0·11	16·38	10·90	+ 5·48	0·24	0·58	− 0·34
Knysna	The Gaoler	1·17	2·49	− 0·72	13·94	18·30	− 4·36	2·43	4·64	− 2·21
Kokstad	H. D. Coyte	0·00	0·64	− 0·64	21·47	16·26	+ 5·21	0·08	0·87	− 0·79
Kingwilliamstown	W. Kindness	0·21	1·09	− 0·88	18·42	15·52	+ 2·90	0·63	2·09	− 1·46
Kuruman	Res. Magistrate	0·18	0·19	− 0·01	20·88	12·37	+ 8·51	0·19	0·43	− 0·24
Mafeking (Convent)	The Mother Superior	0·00	0·43	− 0·43	19·33	14·17	+ 5·16	0·00	0·83	− 0·83
Mossel Bay (Cape St. Blaize)	The Lightkeeper	1·64	1·44	+ 0·20	10·57	11·37	− 0·80	2·42	2·66	− 0·24

RAINFALL, AUGUST, 1925—(*continued*).

Station.	Observer.	August, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1925.	Normal.	Difference from Normal.
Cape Province—(continued).		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Murraysburg	W. Rose-Innes	—	0·37	—	—	7·98	—	—	0·66	—
O'okiep	H. T. Wyles	1·75	1·00	+ 0·75	11·76	5·52	+ 6·24	4·16	1·85	+ 2·31
Philipstown	The Gaoler	0·44	0·36	+ 0·08	21·06	9·94	+11·12	1·22	0·65	+ 0·57
Piquetberg	The Gaoler	—	2·90	—	—	15·15	—	—	5·74	—
Port Elizabeth	The Lightkeeper	0·96	2·12	− 1·16	—	14·24	—	—	3·99	—
Port St. Johns	The Lightkeeper	0·64	2·03	− 1·39	30·76	28·18	+ 2·58	2·07	3·14	− 1·07
Port Nolloth	The Lightkeeper	0·55	0·29	+ 0·26	5·08	1·90	+ 3·18	1·82	0·62	+ 1·20
Prieska	The Gaoler	0·11	0·19	− 0·08	14·69	7·63	+ 7·06	0·31	0·40	− 0·09
Queenstown	H. Holley	0·28	0·57	− 0·29	17·28	15·08	+ 2·20	0·76	1·11	− 0·35
Steytlerville	The Gaoler	0·35	0·47	− 0·13	5·22	6·28	− 1·06	0·97	0·69	+ 0·28
Sutherland	The Gaoler	0·47	0·90	− 0·43	13·63	7·27	+ 6·36	2·13	1·86	+ 0·27
Swellendam	The Gaoler	1·34	2·32	− 0·98	18·37	20·74	− 2·37	2·43	4·49	− 2·06
Sydney's Hope	Rev. S. Rippon	1·24	1·17	+ 0·07	15·63	13·76	+ 1·87	2·41	2·11	+ 0·30
Somerset East	C. Harris	0·87	0·98	− 0·11	13·73	15·97	− 2·24	2·07	1·71	+ 0·36
Stutterheim	F. C. Bousfield	0·48	0·97	− 0·49	23·11	18·18	+ 4·93	1·08	1·56	− 0·48
Uitenhage	H. Inggs	1·07	1·31	− 0·24	10·67	10·87	− 0·20	1·75	2·07	− 0·32
Umtata	B. J. Hackitt	0·01	0·76	− 0·75	18·63	15·74	+ 2·89	0·34	1·28	− 0·94
Uniondale	The Gaoler	1·05	1·30	− 0·25	7·32	9·20	− 1·88	2·13	2·27	− 0·14
Upington	The Gaoler	0·09	0·10	− 0·01	11·60	5·43	+ 6·17	0·70	0·22	+ 0·48
Victoria West	The Gaoler	0·19	0·27	− 0·08	9·52	7·78	+ 1·74	1·09	0·55	+ 0·54
Vryburg	Sergt. H. White	0·04	0·30	− 0·26	20·01	13·78	+ 6·23	0·07	0·55	− 0·48
Worcester	The Gaoler	0·77	1·56	− 0·79	11·73	9·26	+ 2·47	2·72	3·39	− 0·67
Wynberg (Convent)	The Mother Superior	2·60	7·07	− 4·47	31·33	35·04	− 3·71	9·80	14·72	− 4·92
Basutoland—										
Mafeteng	F. Hodgson	0·39	0·89	− 0·50	31·70	20·83	+10·87	0·49	1·47	− 0·98
South-West Africa—										
Aroab	S.W.A. Police	0·00	0·00	± 0·00	11·51	6·92	+ 4·59	1·04	0·01	+ 1·03
Aus	E. Martins	0·00	0·32	− 0·32	10·70	3·80	+ 6·90	2·56	0·54	+ 2·02
Bethanie	Rev. W. Peter	0·00	0·02	− 0·02	8·78	3·81	+ 4·97	0·59	0·30	+ 0·56
Duesternbrock	R. Matthiessen	0·01	0·04	− 0·03	15·77	11·75	+ 4·02	0·54	0·05	+ 0·49
Franzfontein	H. Janson	0·00	0·02	− 0·02	15·00	8·18	+ 6·82	0·00	0·02	− 0·02
Garinais	F. Bertling	0·00	0·05	− 0·06	10·11	5·96	+ 4·15	0·16	0·11	+ 0·05
Gibeon	The Postmaster	0·00	0·01	− 0·01	11·09	5·22	+ 5·87	0·57	0·05	+ 0·52
Gobabis	Rev. J. Irle	0·00	0·07	− 0·07	16·59	12·75	+ 3·84	0·31	0·09	+ 0·22
Grootfontein	A. Pitkowski	0·00	0·02	− 0·02	28·21	15·76	+12·45	0·08	0·02	+ 0·06
Gr. Witvley	F. Reuckert	0·00	0·01	− 0·01	17·90	11·46	+ 6·44	0·35	0·02	+ 0·33
Haribes	G. Freund	0·00	0·01	− 0·01	8·78	6·52	+ 2·26	0·55	0·01	+ 0·54
Hierachabis	Rev. P. Stroka	0·00	0·05	− 0·05	3·13	3·08	+ 0·05	0·04	0·07	− 0·03
Kalkfontein S.	S.W.A. Police	0·00	0·01	− 0·01	8·57	5·15	+ 3·42	0·39	0·06	+ 0·33
Karibib	The Magistrate	0·00	0·02	− 0·02	10·41	5·04	+ 5·37	0·01	0·02	− 0·01

RAINFALL, AUGUST, 1925—(*continued*).

Station.	Observer.	August, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1925.	Normal.	Difference from Normal.
South-West Africa—(contd.)		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Keetmanshoop	H. v. Hartmann	0·00	0·01	– 0·01	8·69	4·67	+ 4·02	0·25	0·08	+ 0·17
Luderitz Bay	H. Eberlanz	0·00	0·10	– 0·10	1·12	0·57	+ 0·55	0·34	0·14	+ 0·20
Maltahoehe	The Magistrate	0·00	0·00	± 0·00	8·43	5·32	+ 3·11	0·00	0·02	– 0·02
Marienthal	J. Empelman	0·00	0·00	± 0·00	7·50	5·46	+ 2·04	0·70	0·01	+ 0·69
Neu Heusis	Liebigs Extract Co.	0·01	0·01	± 0·00	19·88	10·84	+ 9·40	0·68	0·03	+ 0·65
Okahandja	B. Templin	0·01	0·07	– 0·06	21·62	11·96	+ 9·66	0·55	0·11	+ 0·44
Okapehuri	H. v. Rudeo	0·00	0·00	± 0·00	19·45	10·01	+ 9·44	0·23	0·00	+ 0·23
Okosongomingo	R. H. A. Schneider	0·00	0·13	– 0·13	19·86	13·13	+ 6·73	0·56	0·13	+ 0·43
Omaruru	The Postmaster	0·00	0·01	— 0·01	18·16	9·46	+ 8·70	0·08	0·02	+ 0·06
Otjawarongo	The Magistrate	0·00	0·00	± 0·00	16·18	12·18	+ 4·00	0·05	0·01	+ 0·04
Outjo	The Magistrate	0·01	0·02	– 0·01	21·70	12·09	+ 9·61	0·01	0·02	– 0·01
Rehoboth	The Postmaster	0·00	0·07	– 0·07	8·31	8·53	– 0·22	0·19	0·07	+ 0·12
Rietfontein	K. Eichler	0·00	0·02	– 0·02	32·03	15·60	+16·43	0·00	0·02	– 0·02
Swakopmund	Dr. Schweitering	0·00	0·04	– 0·04	0·69	0·42	+ 0·27	0·00	0·05	– 0·05
Tsumeb	Ing Schetter	0·00	0·01	– 0·01	28·17	17·45	+10·72	0·01	0·03	– 0·02
Usakos	Rev. W. Brockmann	0·00	0·00	± 0·00	12·42	4·70	+ 7·72	0·01	0·00	+ 0·01
Voigtsgrund	A. Voigts	0·00	0·02	– 0·02	18·06	7·06	+11·00	0·38	0·03	+ 0·35
Warmbad	A. Ghyoot	0·00	0·08	— 0·08	4·22	3·18	+ 1·04	0·63	0·24	+ 0·39
Waterberg	D. Hahl	0·01	0·05	– 0·04	22·43	15·10	+ 7·33	0·25	0·05	+ 0·20
Wilhelmstal	W. Boehmker	0·01	0·03	– 0·02	17·99	9·81	+ 8·18	0·09	0·03	+ 0·06
Windhoek	Observatory	0·00	0·07	– 0·07	20·93	12·47	+ 8·46	0·73	0·10	+ 0·63

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UNIVERSITY OF ILLINOIS

UNION OF SOUTH AFRICA.

DEPARTMENT OF IRRIGATION.

MONTHLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE.

Vol. VI. **SEPTEMBER, 1925.** **No. 69**

THE early advent of the spring rains over the Transvaal, Natal, and the north-east of the Orange Free State, and their copious nature, were the outstanding characteristics of the weather during the month of September, 1925. Over a large area the quantities were greatly in excess of those recorded in the same month during the last twenty-four years, and the falls were mostly of a gentle soaking nature, although some thunderstorms, sometimes accompanied by hail causing damage, were experienced. Between the 20th and 22nd, heavy rains fell in places on the southern Karroo and along the south coast, and several rivers were in full flood. Over the remainder of the Union the rainfall generally showed a deficit, although scattered showers fell in all parts excepting in a few areas of the northern Karroo, northern Border, and west coast. Heavy falls of snow occurred on the Drakensberg and Hex River Mountains.

The mean temperature was about one-half degree below the normal; this was due to the days being colder than usual, the nights being normal. Hot and cold spells were both experienced, the change in temperature being rapid; and frosts and strong winds caused a little damage. Pressure was about normal, excepting over the centre and south of the Cape Province, where it was slightly higher than usual.

Pressure.—Mean pressure was practically normal in Rhodesia and south-west, but was slightly in excess of normal over the northern Transvaal, the centre, south and south-west of the Cape Province. Anticyclonic conditions prevailed during the greater part of the month, with low-pressure systems on the coast on seven days and the equatorial low pressure over the interior on five days.

On the 1st an anticyclone, having its core of 30·25 inches, over the south-east of the Transvaal, the east of the Orange Free State, Basutoland, and part of the north-east division of the Cape, and of Kaffraria, covered the Union, pressure decreasing to the lowest value of 30·00 inches over South-West Africa. One or two showers had occurred over the south-west; on the 2nd the core of the "high" had moved so as to occupy a position over the south and south-east of the Transvaal, the north of the Orange Free State, and the south of Portuguese

East Africa ; barometric readings had fallen by a few hundredths on the coast of Natal and the south-west of the Cape Province, the greatest decrease of two to three-tenths, however, having occurred on the south and south-east coasts, where lay the outer isobar of a low-pressure system ; in the west an increase of about one-tenth had taken place and the forefront of an anticyclone was lying along the west coast, where an isobar of 30·20 inches passed a little to the east of Port Nolloth ; no rain had fallen in the intervening twenty-four hours ; on the 3rd the eastern core of the anticyclone had moved off the land and the south-eastern "low" had also passed away eastwards, the place of the latter being taken by isobars of 30·20 and 30·25 inches, with gradients to northward, an isobar of 30·00 inches lying over South-West Africa and Rhodesia ; moderate westerly to south-westerly winds prevailed over the south-east and east in place of the light north-east breezes of the previous day ; rain had fallen along the south coast and over the south-west of the Cape Province ; except for a rise of between one and one and a half tenths on the Natal and Portuguese East Africa coasts, conditions were practically the same on the 4th as on the previous morning ; showers had again fallen over the eastern portion of the south coast, but had extended northwards along the south-east and east coasts as far as Durban, and had penetrated into the southern interior of Natal ; on the 5th pressure had fallen generally all along the coast by about a tenth and by half this amount in South-West Africa, where there were indications of the protrusion southwards of the equatorial "low" ; showers had again fallen along the south-east and east coasts, between East London and Durban, and in parts of the southern interior of Natal ; on the 6th the "low" over the northern interior had deepened, the barometer in the interior of South-West Africa having fallen about a tenth of an inch ; a fall of a similar amount had taken place on the west and south coasts, and of about half this amount on the east coast where the isobar of 30·20 inches, previously over the Transvaal, had moved to the neighbourhood of Burra on the coast of Portuguese East Africa ; north winds along the south coast seemed to indicate the proximity off the coast of a complementary inverted "V" depression ; no rain reported ; on the 7th, the barometer had fallen an additional tenth of an inch over the northern interior, while a larger decrease in pressure of two to three-tenths had occurred on the east and south-east coasts, decreasing to one-tenth or less in the south and south-west ; the lowest pressure (29·80 inches) lay over the centre of South-West Africa and Bechuanaland, while a complementary "low" was centred over Port St. Johns, the isobar having the same value of 29·80 inches ; an increase of pressure had taken place on the west coast, where the advance portion of an anticyclone lay, pressure being highest, 30·10 inches, at Port Nolloth ; moderate northerly to westerly winds prevailed along and near the south and south-east coasts ; showers had fallen over the south of Bechuanaland, parts of the northern Border, of the northern Karroo, and of the east central Karroo ; also over the south-west of the Cape Province, on the south-east coast, parts of Kaffraria, the centre of the Orange Free State, and the south of Natal ; also a very small amount at Windhoek in South-West Africa ; on the 8th, the fragment of the eastern "high" and the coastal "low" had disappeared, while the western "high" had advanced eastwards, and its front was now covering the greater part of the Union ; the interior "low" had been apparently driven northwards and an isobar of 29·85 inches, now lay near the northern boundary of South-West Africa and of Southern Rhodesia ; rain had fallen over almost the whole Union, except the more central and northern parts of northern Karroo, the west of Bechuanaland, and Zululand ; also very light showers in the northern interior of South-West Africa ; on the morning of the 9th a remarkable change was seen to have taken place ; a fall in pressure of between two and three tenths had taken place on the south and south-west coast, half this amount on the west coast of the Cape, while a slight drop of about half a tenth had occurred on the South-West African coast; on the other hand, a sharp rise of two to three-tenths had occurred at Lourenco Marques; as a result of these changes the head of an inverted "V" depression lay on the south coast, with the lowest reading of 29·85 inches near Mossel Bay; the complementary "low" lay over South-West Africa, while portions of two anticyclones lay one on the east and the other on the west coast; rain had fallen at a few stations on the south and east coasts, in the south of Natal, in parts of the north and east of the Transvaal and Swaziland; on the 10th the eastern anticyclone had decreased and was represented by an isobar of 30·05 inches, while the south coast "low" had moved on to the east coast and was centred over Durban, the lowest isobar being 29·85 inches, representing the rear of the depression; the complementary interior "low" had decreased slightly in intensity, while a high-pressure isobar of 30·20 inches stretched along the west coast; rain had fallen over the southern half of the west coast area, the south-west, the western part of the south coast, portion of Kaffraria, the south-east, north and north-west of the Orange Free State, and parts of the north, west, middle, south, and south-east of the Transvaal; on the 11th the eastern low-pressure system had passed away and pressure had increased considerably by between three and four-tenths on the east coast, by about two-tenths on the south, and one-tenth in the south-west, but had fallen by about one-tenth on the west coast and over the northern interior; the "low" in Bechuanaland and south-west was well defined, while the Union was under relatively high pressure with gradients to the north; the highest isobar, of 30·25 inches, extended along the south and south-east coasts and pressure diminished to 29·85 inches in the northern interior; rain had fallen all along the south and east coasts, in Natal, Zululand, Basutoland, part of Bechuanaland, almost the whole of the Transvaal with the exception of the extreme south-west and the north and north-east of the Orange Free State; on the 12th the equatorial "low" had pushed further and a fall in pressure of three to four-tenths had occurred on the south-east coast, where a complementary "V" depression was centred off Great Fish Point; a general fall in the barometer had taken place, so that the highest pressure in the east was 30·02 inches at Lourenco Marques, and a 30·05 inches isobar lay along the west coast; rain had occurred over the eastern half of the Transvaal, the north-east of the Orange Free State, Natal, and the adjacent portion of Kaffraria; also slight local showers in the south-west; on the 13th a general increase of pressure had taken place over the Union, amounting to two-tenths on the south and over the northern interior of the Cape, and to one-tenth on the east and west coasts; the equatorial "low" had been pushed apparently further north by the advancing high pressure from the west, where the highest isobar, of 30·20 inches, lay along the coast; rain had fallen over the south-west of the Cape and local showers on the south coast; also locally in the north and west of the Transvaal; on the 14th the highest isobar had moved to a position in the south-west, pressure having fallen by a tenth on the west coast and risen by a few hundredths in the south and east, but by about a tenth over the northern interior; except for the alteration in the position of the highest pressure, conditions were practically unchanged; local showers had fallen in the south-west Cape, in Bechuanaland, the greater part of the Transvaal and Zululand; on the 15th pressure had increased generally by two-tenths on the south coast and about half a tenth in the northern interior; the isobars had assumed a more general east and west direction over the Union, the highest being 30·40 inches along the south coast, and the lowest 29·90 inches in Bechuanaland Protectorate and South-West Africa, the gradients being from south to north; moderate to strong southerly winds were general over the Union;

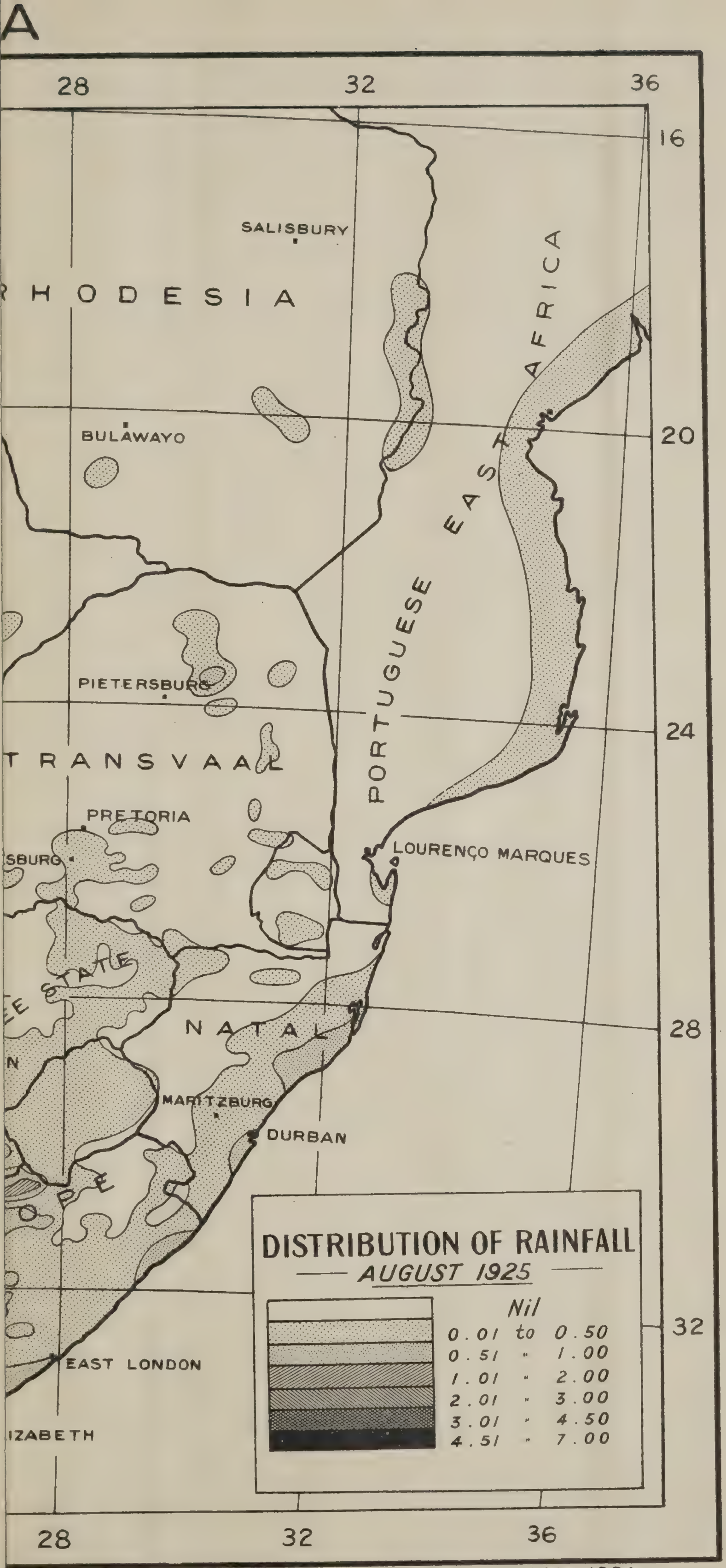
rain had fallen along the south and south-east coasts, and continued over the Transvaal, Bechuanaland, Zululand, Natal, and the adjoining portion of Kaffraria; by the 16th a further rise in pressure had taken place and the isobars had assumed a north-east to south-west trend, with gradients from south-east to north-west; the highest isobar, 30·60 inches, lay over the south-east coast, and the lowest 30·00 inches, over the north of South-West Africa and the extreme south of Northern Rhodesia; moderate to strong southerly to easterly winds were general over the Union: rain had fallen over the north, centre, east, and south-east of the Transvaal, the north-east of the Orange Free State, Natal, and the extreme east of Kaffraria: on the 17th it was seen that the highest pressure, 30·60 inches, was on the Natal coast, and a slight rise had taken place on the east coast to the north of Durban, but that the barometer had fallen all along the coast to southward by one to three tenths, the fall being greatest in the south-west, and by one-tenth on the west coast of the Cape Province, this change being brought about by a movement of the anticyclone towards the north-east; only a few local showers had fallen in the north and east of the Transvaal, in Zululand, and on the Natal coast; moderate north-easterly to easterly winds were prevalent over the country; by the 18th a further and general fall in pressure had occurred of two to three-tenths in the south and east, and of about one-tenth in the west; the gradients had decreased particularly in the north-east, so that much lighter easterly winds were experienced over the Transvaal and Orange Free State; moderate to high northerly winds were experienced over the Cape Province; a strong east wind at Port Nolloth, a high north-east wind at Clanwilliam, and light north-easterly breezes in the south-west of the Cape pointed to an approaching low-pressure area; the highest pressure was indicated by an isobar of 30·40 inches over the south-east of the Transvaal and the south of Portuguese East Africa, and Zululand, whereas the lowest pressure was 30·00 inches along the west coast; no rainfall reported; by the 19th the low pressure had established itself over the west, south-west, and south of the Cape Province, the lowest reading of the barometer being 29·84 inches at Cape Agulhas; there had been a slight decrease of pressure in the north-east, where the highest isobar was now 30·35 inches; moderate to strong northerly winds prevailed generally, turning to north-west and west over the Cape Peninsula; a pressure of 30·00 inches was to be found in the north of South West Africa; no rain reported; by the 20th the southern "low" had apparently moved partly off the coast in an east-south-east direction, so that when the lowest isobar of 29·95 inches passed through Port Elizabeth pressure had risen to 30·15 inches on the north-west coast, while in South-West Africa a complementary "low" was forming and pushing southwards; light to moderate northerly to westerly winds prevailed over the interior and north-easterly winds on the east coast; a north gale was blowing in the neighbourhood of the Orange River and Kenhardt; rain had occurred locally in parts of the west, as at Piquetberg and Calvinia, and also off the Namaqualand coast; by the 21st a further slight fall had taken place over the northern interior of South-West Africa and Bechuanaland, and the equatorial tongue of low pressure had pushed southwards practically to the coast; moderate north to north-east winds prevailed in the eastern half of the Union, and moderate to strong south to west winds in the western half; a fall of about one-tenth had taken place in the eastern "high," and an isobar of 30·20 inches lay off Burra in Portuguese East Africa; an increase of one to two tenths had taken place in the west; rain had fallen in Namaqualand, the west coast area, the south-west, along the south coast, over the southern and central Karroos, and the east and west of the northern Karroo; by the 22nd pressure had increased by one-tenth in the south and south-east, had decreased slightly all over the east and by about one-tenth in the west; the isobars of the "low" were much more open and less compressed than on the previous day; gentle to moderate easterly to north-easterly winds prevailed over the east of the Union, southerly winds in the west, and westerly along the south coast; rain had fallen over the southerly part of the eastern half of the northern Karroo, the eastern parts of the central and southern Karroos and of the south coast, the east of the Cape Province, including Kaffraria, Natal, the south and south-east of the Transvaal, Swaziland, Basutoland, and the north, north-east, east, and south-east of the Orange Free State; on the 23rd little change was seen to have occurred; a rise of about one-tenth of an inch had taken place in the south and south-east, so that a 30·30-inch isobar lay along the south coast with gradients to the north, pressure being 29·85 inches over the north of South-West Africa and the south of Southern Rhodesia; light easterly winds prevailed over the Transvaal and Orange Free State, and moderate easterly to south-easterly winds over the Cape Province; rain had fallen along the south coast, over the southern Karroo, the east of the central Karroo, the north-east of the Cape Province, Kaffraria, Natal, Zululand, the north-east of the Orange Free State, the south, south-east, and east of the Transvaal; on the 24th conditions were practically the same as on the 23rd except for a slight rise in the south-east and a slight fall in the south-west and west, strong southerly to south-easterly winds were blowing along the south coast, and moderate to strong easterly winds in the west coastal area; rain had again fallen over the same areas as on the preceding day, but had extended to the north-east and north of the Transvaal; by the morning of the 25th a considerable change had taken place; pressure had increased by about one-tenth on the east coast, but had decreased by one-tenth on the south coast, and two-tenths in the south-west; a "V"-shaped depression had pushed southwards to the Cape Peninsula, so that the eastern isobars now lay in a north-east to south-west direction, and the western isobars had a general north-west to south-east trend; rain had fallen along the south and east coasts, over the north-east of the Cape, in Kaffraria, Natal, and Zululand, but only locally in the north of the Transvaal, the rest of the Transvaal not having received any precipitation; the winds were mainly north-easterly to easterly, light to moderate in force; by the 26th a further fall in pressure had occurred over the south-west, amounting to one-tenth, and a greater fall of double this amount in the south and south-east, while an increase of about one-tenth had taken place on the west coast of South-West Africa and the coast of Namaqualand; a slight rise had also taken place on the coast of Portuguese East Africa, so that an anticyclone, having its highest pressure between Burra on the east coast and the south of the Transvaal, now lay over the north-east; an inverted "V" depression centred off Mossel Bay now affected the greater part of the Cape Province; light to moderate north to north-west winds blew over the greater part of the Union, increasing in part of the northern Cape and west of the Transvaal to forces six and seven; the rain that had fallen was confined to Natal, Zululand, and portions of Kaffraria, and the south-east of the Cape; by the 27th the rear isobars of the coastal "low" lay over the south-east and east; pressure had decreased by about one-tenth in the eastern anticyclone, and a rise of about one and a half tenth had taken place in the south-west; a slight decrease had occurred, however, on the west coast; the northern "low" had apparently retreated northwards; showers had taken place locally in the south-west part of the Transkei and Swaziland; gentle northerly to north-easterly winds occurred over the west and south of the Transvaal, and moderate to strong westerly (north-west to south-west) over the rest of the country; on the 28th it was found that a decrease of about one-tenth had taken place over the northern interior portions of the Union, South-West Africa, Rhodesia, and Portuguese East Africa, while a slight increase had occurred on the south-east coast, where, however, there were indications of the presence of a complementary "low"; the interior "low" had protruded southwards over the centre of the Union, and the eastern "high" had weakened by about one-tenth; rain had been confined to Natal and Zululand; on the 29th a "low" had appeared over the south-east, where pressure had decreased by about two-tenths, but a slight increase had taken place on the west coast; moderate to fresh easterly and north-easterly winds were blowing on the east and south-east coasts and moderate to strong northerly to westerly winds over the rest of the country; rain had fallen along the western half of the south coast and inland to the west central Karroo, also in the south of Natal; by the 30th the western "high" had advanced a considerable distance to the east, pressure having increased by two to four-tenths in the centre, south, west, and east of the Union, and by almost one-tenth on the coast of Portuguese East Africa, and in South-West Africa; the isobars in the north lay in a general E.N.E. to W.S.W. direction; rain had fallen over the south-west of the Cape Province, part of the south-east coast, and the central Karroo, also on the coast of Kaffraria.

Temperature.—The mean temperature during September was 59·8 degrees, or 1·2 degree, less than normal. The deficit was entirely due to the mean day temperature, 72·1 degrees, being 2·5 degrees lower than the average, while the mean night temperature, 47·5 degrees, was 0·1 degree higher than usual. A mean monthly temperature lower than usual was common to the Provinces, with the exception of the Cape Province, which, with a mean of 59·7 degrees, was 0·4 degree higher than the normal. The Transvaal (with 59·6 degrees for the month) was 2·7 degrees, the Orange Free State (with 55·4 degrees) was 2·4 degrees, and Natal (with 63·2 degrees) was 2·3 degrees cooler than the corresponding average values. Sub-normal mean maxima were common to all the Provinces; thus, the Transvaal (with a mean day temperature of 73·4 degrees) was 4·0 degrees, the Orange Free State (with 69·3 degrees) was 3·2 degrees, Natal (with 74·1 degrees) was 5·0 degrees, and the Cape Province (with 71·1 degrees) was 0·6 degree cooler than the respective mean maximum temperatures. On the other hand, mean night temperatures lower than usual were confined to the Transvaal and Orange Free State, which, with mean minima of 45·8 degrees and 41·4 degrees respectively, showed deficits of 1·4 degree and 1·7 degree from the correspondnig normal values. Natal, however, with 52·4 degrees as its mean minimum, was 0·5 degree, and the Cape Province, with 48·4 degrees, was 1·4 degree under the average value. Considering the stations separately, it is seen that the mean temperature during September was lower than usual over the Transvaal, Orange Free State, practically the whole of Natal, and the greater part of the east and north of the Cape Province. The deficits in mean monthly temperature over the Transvaal were commonly between 2 and 3 degrees, and occasionally exceeding these amounts; they varied from 0·6 degree at Standerton to 4·3 degrees at Klerksdorp. In the Orange Free State the shortages were also between 2 and 3 degrees, varying, however, from 0·7 degree at Ladybrand to 3·2 degrees at Lindley. With the exception of a small excess of 0·4 degree in the mean for this month at Stanger, the stations in Natal showed temperatures less than usual by amounts similar to those in the Orange Free State and Transvaal, varying, however, from 0·8 degree at Durban to 3·9 degrees at Dundee. The stations in the Cape Province with sub-normal temperatures showed much smaller deficits on the whole than those in the other Provinces, being frequently less than 1 degree, particularly in the east, but ranging from 0·1 degree at Kingwilliamstown to 3·6 degrees at Vryburg. Supra-normal temperatures were general over the western half of the Cape Province, parts of Kaffraria, of the south-east, and of the east central Karroo. These excess amounts were mostly between 2 and 3 degrees in the coastal areas, except on the Namaqualand plateau and in Kaffraria, where they decreased to 1 degree and less, while in the interior the excesses were between 1 and 2 degrees. The surplus quantities varied between 0·4 degree at Umtata and 3·3 degrees at Capetown.

The mean maximum or day temperatures were considerably lower than usual over the whole of the Transvaal, Natal, the Orange Free State, and the north and the greater part of the east of the Cape Province. In the Transvaal the sub-normal amounts were mostly between 3 and 4½ degrees, but ranged from 0·7 degree at Bloemhof to 6·3 degrees at Middelburg. In the Orange Free State the days were mostly between 2½ and 4½ degrees cooler than the average, the deficits lying between 1·4 degree at Bloemfontein and 4·6 degrees at Harrismith ; in Natal the mean maxima were less than the normals commonly by 3½ to 6 degrees, the deficits being, however, between 1·9 degree at Stanger and 7·6 degrees at Ladysmith. In the Cape Province the shortages in the east were mostly between 1½ and 3 degrees, increasing to 4·1 degrees at Somerset East and Grahamstown, and decreasing to 0·7 degree at Graaff-Reinet ; over Bechuanaland and the northern Border the minus quantities varied from 2·9 degrees at Mafeking to 4·5 degrees at Vryburg, while O'okiep, on the Namaqualand plateau, showed a deficit of 0·7 degree in the mean day temperature. The excesses in the mean maxima were generally between 2 and 3 degrees in the west, south-west, and centre of the Cape Province, but decreased to mostly less than 1 degree on the south coast and in the south-east and Kaffraria ; they ranged from 0·1 degree at Umtata to 3·2 degrees at Capetown. The mean night temperatures were sub-normal over the Transvaal except in the east of the high veld, where small excesses were commonly met with ; the deficits were frequently between 3 and 4½ degrees, but varied from 0·3 degree at Potchefstroom to 4·7 degrees at Klerksdorp. In the Orange Free State, Ladybrand in the east showed an excess of 1·8 degree, but the other stations showed deficits in the mean minima varying between 1·2 degree at Harrismith and 3·4 degrees at Bethulie. In Natal the night temperatures were higher than usual, mostly by 1 to 3 degrees, except at Dundee and Hlabisa, where the nights were cooler than usual by 3·0 degrees and 0·6 degree respectively. Similarly the nights in the Cape Province were mostly warmer than usual, except in Bechuanaland and at one or two stations in Kaffraria and the south-east. The excesses were frequently between 2 and 4 degrees, but varied from 0·3 degree at East London and Sydney's Hope to 4·2 degrees at Port St. Johns. The deficits in the mean minima ranged from 0·8 degree at Grahamstown to 2·8 degrees at Vryburg. The mean warmest station was Komatipoort with a temperature of 70·2 degrees for this month, and the mean coldest was Harrismith with 51·8 degrees, a difference of 18·4 degrees. The mean maxima varied between 83·3 degrees at Komatipoort and 62·9 degrees at Harrismith, and the mean minima between 60·8 degrees at Durban and 37·0 degrees at Belfast. The warmest days of the month were 1st to 3rd, 7th, 17th to 19th, and 25th to 30th, more particularly the 29th. The lowest readings were registered on the 1st and from the 8th to the 22nd inclusive, most widely on the 12th and 18th. The mean of the highest readings was 87·2 degrees, and of the lowest 37·9 degrees, giving a mean monthly range of 49·3 degrees over the Union. The extreme values during September were 98·0 degrees at Komatipoort on the 29th and 26·0 at Belfast on the 20th, yielding an extreme monthly range of 72·0 degrees. *Frost.*—Temperatures in shade of 32° F. or under occurred on the 9th, 12th, and 16th at a number of stations in the Cape ; on the 12th, 14th, and 18th in the Orange Free State : and on the eastern high veld of the Transvaal on the 20th. Ground frosts were more or less local, and were reported as having occurred during the month in the Wepener, Senekal, Winburg, and Hay districts, causing a considerable amount of damage to fruit blossoms. (No dates given.) On the 16th frost occurred at Graaff-Reinet; on the 18th at Gemboksfontein (Middelburg, Transvaal) and Nottingham Road (Division Weenen); on the 19th and 20th at Gemboksfontein; while the last for which any date is given was that at Andriesfontein (Division Hanover) on the 28th, which was stated to have been severe. Much damage was caused at Graaff-Reinet by the frost on the 16th.

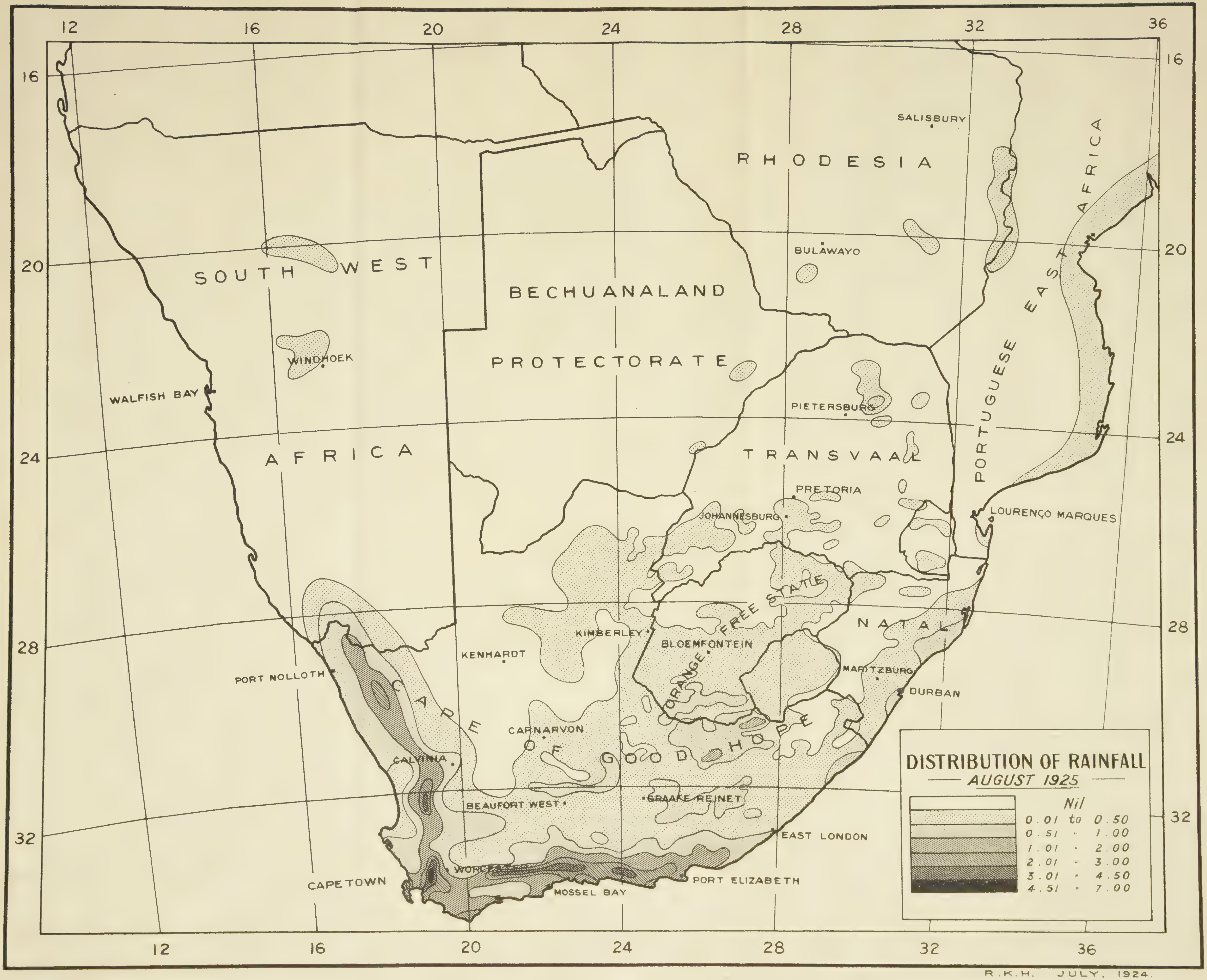
Precipitation.—The most noteworthy feature of the weather of September was the unusually abundant early rains that fell over the greater part of the summer rainfall and the all-the-year-round areas. Precipitation was general, except over a wide continuous area including the western part of the northern Border and the centre, west, and south of the northern Karroo; small patches with "nil" were also to be met with in the south and south-west of the Orange Free State, the north-east, south-west, and west coastal area of the Cape Province. The greater part of the Transvaal received a rainfall of 2–3 inches, decreasing to half an inch or less in the south-west, and to between 1 and 2 inches in the eastern low veld and over a small area in the north on the borders of Bechuanaland and Rhodesia. A narrow belt of 3–4½ inches crossed the middle of the Province from a point near the western border and ran almost due east, sending a branch southwards to the neighbourhood of Pretoria and Johannesburg; on reaching the Middelburg District it expands considerably in a southerly and south-easterly direction, covering a considerable portion of the eastern high veld and the greater portion of Swaziland, and then passes into Zululand and Natal. Some small patches of equal rainfall occurred also in the north and north-east and a much larger area in the north-west, in the Waterberg Division, extending into Bechuanaland. A fairly large area of heavier rainfall, 4½ to 7 inches, occurred in the extreme south-east, bordering and extending into Swaziland; similar small areas were to be found in the east of the high veld and in the Zoutpansberg. In the Orange Free State areas of greater and less rain alternated with each other, decreasing on the whole from north to south. Thus the north-midland portion had a rainfall between half an inch and 1 inch; this was practically surrounded on all sides, except to the north-east and south-west, by a belt of higher rainfall, i.e. of 1 to 2 inches; south of this was a second and narrower belt having again between half an inch and 1 inch of precipitation, and south and west of this a broad area of half an inch or less, the continuity of which was broken by a narrow strip showing no rainfall. Small patches of 2–3 inches occurred in the north-east and east. In Natal the amount of rainfall registered from between 1 and 2 inches in the west and north-west to between 4½ and 7 inches on the coast, including that of Zululand, with two small patches over 7 inches, one being north and the other south of Durban. There was a falling off, however, in the south-east over a small area extending from Richmond County to the southern border of Alfred County, where the total rainfall for the month was only between 1 and 2 inches. In the Cape Province the largest quantities of over 10 inches were recorded in the south coastal districts of George and Knysna. while amounts between 7 and 10 inches were also confined to the same two districts. A continuation of the area of 4½ to 7 inches on the Natal coast is found on the Kaffrarian littoral, and patches along the south coast and a few small areas with similar quantities in the south-east in the neighbourhood of the Amatola Range. From this area the rainfall decreased rapidly in all directions, so that quantities of half an inch to "nil" occurred over the greater part of the west coast, the western portions of the southern and central Karroos, the northern Karroo, northern Border, a goodly portion of Bechuanaland, Gordonia, and the northern portion of the north-east. In South-West Africa only small quantities were recorded, and these were confined to a band along the eastern border.

Compared with the normal, the rainfall for this month (September) was very largely in excess of the average over practically the whole of the Transvaal,



R.K.H. JULY, 1924.

SOUTH AFRICA



R.K.H. JULY, 1924.

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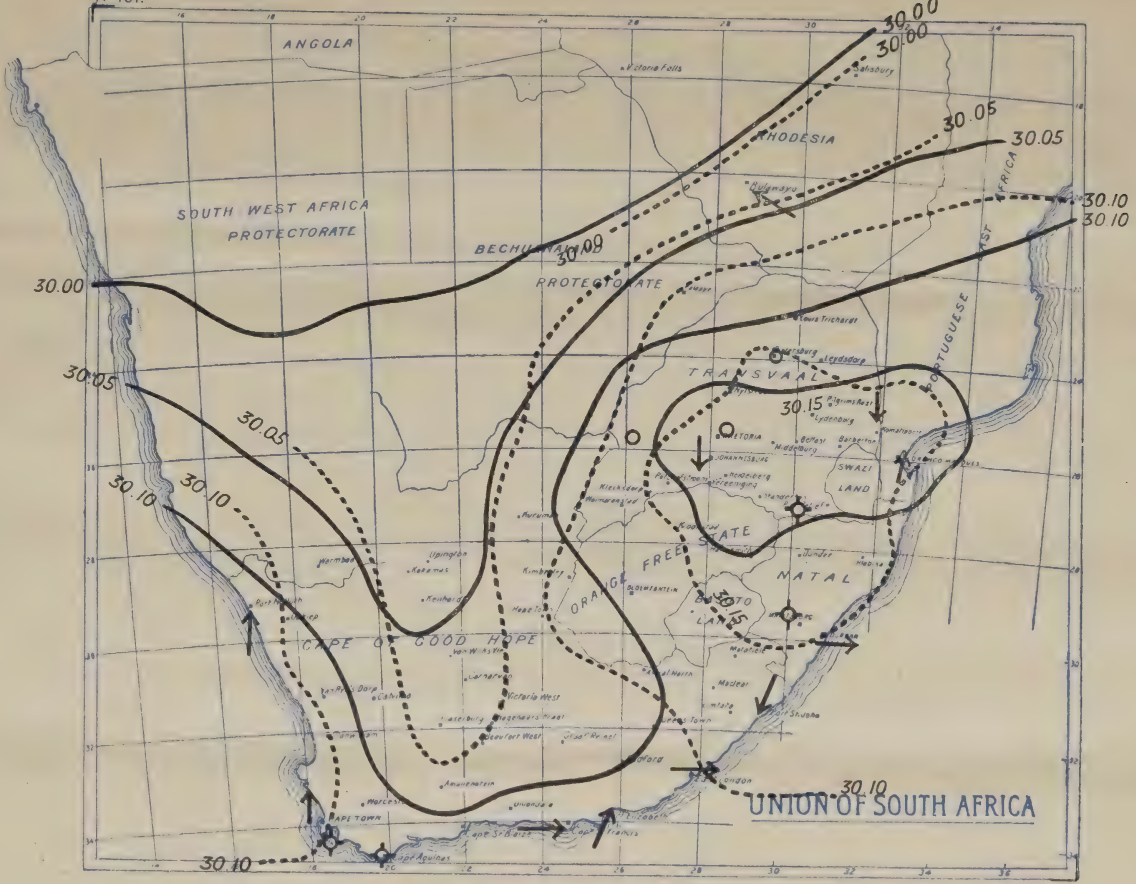

September, 1925. Prevailing Winds and Mean Atmospheric Pressure at 8.30 a.m.
The dotted lines indicate the normal distribution for September.

Bechuanaland, the major part of the northern half and east of the Orange Free State, Natal, with the exception of the south central parts, part of Kaffraria, north-east, the east of the central Karroo, the southern Karroo, and the south coast. The mean rainfall over the Union was 2·30 inches or 76 per cent. higher than usual. Precipitation over the areas of excess showed a mean of 3·45 inches, or 135 per cent. more than usual, and over those with deficient rainfall, of 0·61 inch, being only 47 per cent. of the normal. In the Transvaal the proportion varied between more than ten times the usual quantity in the north-west to a little less than the average in a small area in the south-west, which extended into the north of the Orange Free State. The typical stations in the Transvaal showed a mean of 2·80 inches, being 2·04 inches or 268 per cent. in excess of the normal. The area of excess had a mean of 2·88 inches, or 275 per cent. higher than usual, while the deficit in the south-west was only small, 3 to 5 per cent. In the Orange Free State the rainfall was greatest, two to three times the normal in the north-east, and decreased to between "nil" and 25 per cent. in the south and south-west. In the Orange Free State, the mean for the month was 1·46 inch, or 42 per cent. higher than usual. The plus areas had a mean of 1·97 inch, or 82 per cent. above normal, while the sub-normal areas had a mean of only 0·20 inch, or 77 per cent. under the average. In Natal the excess was one to two times the average over the greater part of Zululand, but the totals decreased towards the coast and southwards to between normal and 75 per cent. in the centre of the southerly portions of the Province. In Natal the mean rainfall was 3·68 inches, or almost double the usual amount. In the Cape Province the month's precipitation was heaviest, between three and five times the normal in George Division on the south coast; the proportion decreased in all directions, but least rapidly towards the north-east, and was from a quarter of the usual quantity to "nil" over the greater part of the west coast and of the interior plateaux. The mean depth of rainfall over the Cape Province was 1·64 inch, or only 7 per cent. in excess of normal. The areas with surplus amounts had a mean value of 3·44 inches, or 85 per cent. more than the normal, while the mean over the sub-normal areas was only 0·63 inch, or 53 per cent. under the average. In South-West Africa the rainfall was below normal, except at Keetmanshoop, where the excess of 0·07 inch was two and a third times the usual amount; but the amounts falling in the territory at this period of the year are negligible.

The accumulated rainfall since the beginning of the year was considerably greater than usual over the Transvaal, Orange Free State, Natal, and by far the greater portion of the Cape Province, where sub-normal aggregates were confined to the Cape Peninsula, most of the south-west, a few areas on the south coast, the southern Karroo, and part of the central Karroo, and of the south-east. The deficits in the Cape Province varied from 0·05 inch, or less than 1 per cent. at Uniondale, to 8·55 inches, or 13 per cent. at Driefontein (French Hoek); while the excess amounts, which were mostly between 3 and 6 inches, occasionally, however, exceeding 10 inches, ranged between 0·01 inch, or less than 1 per cent. at Groot Drakenstein in the south-west, to 12·84 inches, or 88 per cent., at Aliwal North. In Natal the surplus amount of rainfall was usually considerably over 10 inches, and ranged from 4·76 inches, or 28 per cent. of the average at Weenen, to 48·65 inches, or 179 per cent. of the normal, at Hlabisa. In the Free State, the surplus amounts for the first nine months of the year were greatest, 7–9 inches, in the east, north-east, and south, but decreased to between 1 and 2 inches in the north and west; they ranged from 1·15 inch, or 8 per cent., at Boshof to 9·37 inches, or 72 per cent., at Bethulie. Over the Transvaal the gross totals were larger than usual, generally by 4–9 inches, the surplus exceeding 10 inches, however, in parts of the east and south, and rising to 20–30 inches in portions of the east and north-east; they ranged from 1·33 inch, or 8 per cent., at Ermelo to 30·83 inches, or practically 100 per cent., at Pigeonhole

(Zoutpansberg Division). In Swaziland, Mbabane had an excess of 34·15 inches. or 103 per cent. In South-West Africa there was practically a general excess in the nine months' rainfall, mostly between 2 and 5 inches in the southern half, and between 6 and 9 inches in the northern half, occasionally exceeding 10 inches in parts of both sections. The plus amounts lay between 0·05 inch, or about 2 per cent., at Hierachabis in the south and 16·40 inches, or 105 per cent., at Rietfontein in the north-east; Rehoboth had a shortage, however, of 0·36 inch, or 4 per cent.

The accumulated totals since the 1st July of this year were greater than usual over the Transvaal, with the exception of the south-west, over the centre and north-east of the Orange Free State, practically the whole of Natal, the south coast, southern and eastern Karroos, the north, centre, west, and south of the northern Karroo, western portion of Bechuanaland, the west coast, and parts of the south-east of the Cape Province, and of Kaffraria. In South-West Africa the totals since the beginning of July were also above normal except in the west and north of the northern half and at a few stations in the north-centre and of the south-east of the southern half of the territory. Over the Transvaal the amounts of the excesses were generally between 1 and 3 inches, but were less than 1 inch at many of the stations in the west, south, and south-east. They varied from 0·09 inch, or 7 per cent.. at Komatipoort, and 4·56 inches, or 198 per cent., at Piet Retief. The sub-normal quantities were mostly small, less than half an inch, varying from 0·12 inch, or 9 per cent., at Bloemhof, to 0·54 inch, or 37 per cent., at Potchefstroom. In the Orange Free State, Harrismith had a surplus precipitation of 1·12 inch, or 50 per cent., and Bloemfontein an excess of 0·50 inch, or 37 per cent., of the normal, while the shortages lay between 0·21 inch, or 12 per cent., at Kroonstad and 1·63 inch, or 80 per cent., at Boshof. In Natal the three months' precipitation was less than usual at Ladysmith by 0·24 inch, or 12 per cent.; the excesses varied considerably, being generally between 1 and 3 inches, but ranging from 0·45 inch, or 19 per cent., at Dundee, to 5·40 inches, or 96 per cent., at Stanger. In the Cape Province the excesses were mostly under 1 inch, but increased to between 1 and 3 inches in the south and Namaqualand; they varied from 0·05 inch, or 9 per cent., at Kenhardt, to 8·50 inches, or 117 per cent., at George on the south coast area. The deficits in this Province were generally under 1 inch in the interior and frequently less than half an inch, but increased to about 2 inches in parts of the south-east and to between 7 and 8 inches at some stations in the south-west; they ranged between 0·07 inches, or 7 per cent., at Britstown to 8·19 inches, or 42 per cent., at Wynberg in the Cape Peninsula. In South-West Africa the excesses were mostly under half an inch, but exceeded 1 inch at Aroab (1·03 inch) and Aus (1·01 inch), both in the southern half, while the largest surplus in the northern half was 0·54 inch at Windhoek. The shortages were small, seldom being more than one-tenth of an inch, varying from 0·01 at Mariental to 0·17 at Tsumeb.

Thunder and Lightning were comparatively infrequent over the Union, the rain being mostly of a steady, penetrating nature. During a severe thunderstorm at Hoopstad (Orange Free State) on the 10th, a native, eleven sheep, and three head of cattle were struck. *Hail* fell during the rain showers at Senekal (Orange Free State) and Barberton (Transvaal), and a number of destructive storms occurred in various parts during the month, causing a considerable amount of damage. The most severe storm for many years at Rietvlei (Hoopstad) occurred on the 10th, when stones fell the size of fowls' eggs; twenty sheep were killed in the neighbourhood, and much damage was done as far as Theunissen, a distance of about fifty miles. At Selika, in the Bechuanaland Protectorate, a severe storm occurred on the 11th, when stones the size of hens' eggs fell, breaking branches of trees and killing small game; a rainfall of 2·90 inches in twenty-five minutes occurred during this storm. On the same date hail fell at Roos Senekal (Division Middelburg) damaging fruit trees, and at Riversdale (Kroonstad Division), without doing much damage, however. On the 13th a hailstorm at Myrthley (Standerton) damaged fruit trees, but another at Parktown North on the same date caused practically no damage. The most intense hailstorms on this date (13th) occurred in the Marico District at Magdalina's Kraal, where stones the size of oranges fell from 3 to 3.20 p.m.; also at Syferfontein from the north-east, where some stones measured 6½ inches in circumference; and at Crocodile Pools (Marico Division) at 5 p.m., when some stones measured 8 inches in circumference. At the last-mentioned place a second storm, at 7.30 p.m., dented iron roofs and lacerated the backs of cattle. At Doornkloof (Zoutpansberg Division) hail on the 23rd did but little damage. The most interesting fall of hail, from some points of view, was that reported as having occurred at Bothasberg, about thirty miles north of Middelburg (Transvaal). No date is given, but a curious sort of hail fell there, resembling large lumps of ice or snow, which were perfectly soft when they reached the ground, and " looked like pieces of soft fat," to use the actual words of the reporter. This type is unusual, and, indeed, is the first occurrence of the kind reported to this office. The description given recalls the claims made for the effect of the Vortex Cannon and Parahails used in France in attempts to prevent hail. Evidently the conditions necessary for the formation of hail of this character are of much more frequent occurrence in France than in South Africa.

State of Country.—Notwithstanding some cold spells, particularly about the middle of the third week, when frost was reported from a number of stations, particularly on the eastern high veld, and some very windy days, the weather of September was extremely favourable to agriculture. The unusually abundant early rains did a considerable amount of good, bringing on the young grass in the veld and providing early green pasturage, materially benefiting winter crops, which were promising well, as well as enabling ploughing and the preparation of the land for summer crops to be carried out. In the Wakkerstroom Division the grass was growing very slowly, but in other parts the veld was in good condition, and in Swaziland the country was looking at its best. In some parts of the Rustenburg Division cotton was planted, but on most farms the ground was being prepared for the next rains. Fruit trees were generally heavily laden and promised large crops. In the Middelburg District a hailstorm on the 11th caused some damage to fruit at Roos Senekal; on the 13th a severe storm of this nature occurred in the Marico District, the stones being reported as the size of oranges and of 6½ to 8 inches in circumference, the trees at Crocodile Pools being stripped of their leaves; fruit trees were damaged on the same day at Myrthley in the Standerton Distirct, and some slight damage caused by a storm of this nature at Doornkloof, in the Zoutpansberg Division, on the 23rd. Stock were generally in good condition, and, in fact, were stated to be in better condition than for the last fourteen years at Weltevreden in the Potchefstroom District. Cattle were reported, however, to be weak in the Wakkerstroom Division; the sheep farmers in Swaziland had gone to the high veld. In the Orange Free State conditions were much less favourable, particularly as regards the amount of rainfall, than over the greater part of the Transvaal, only small patches in the Lindley District and along the Basutoland border having as much as 2–3 inches, while a large area in the south and west had little or no precipitation. The weather appears to have varied considerably over this Province during the month. Thus at Prospect (District Vrede) the early part of the month was distinctly colder than at the end of August, but was mild and pleasant in the latter part. In Senekal and Kroonstad, on the other hand, the beginning of the month was fine and everything was doing well, while the latter portion was cold and changeable. In the Lindley District the reaping of mealies had not been finished yet, but ploughing had been started again. In the Ladybrand, Senekal, and Lindley Districts wheat was promising well but required rain; mealies were being planted in the Ladybrand District. Fruit trees had an unusual amount of blossom, some of which was killed by frost in the Wepener and Winburg Districts; in the latter a severe hailstrom on the 10th, lasting ten minutes, with stones the size of pigeons' eggs caused a lot of damage to plants and orchards at Unity. Some hail was also reported from the Senekal and Kroonstad Districts, but did not cause much damage. Stock were generally healthy and in good condition, but "geelziekte" was causing trouble among sheep at Elandskop (Senekal District) at the end of the month. A hailstorm on the 10th at Rietvlei (Division Hoopstad) is stated to have been the most severe for many years; stones, the size of fowls' eggs, killed twenty sheep, and much damage was caused as far as Theunissen, a distance of about fifty miles. At Hoopstad, about twenty-five miles west from Rietvlei, severe lightning killed eleven sheep, three head of cattle, and one native on the same day. The veld was turning green unusually early in Vrede and Senekal Districts. In Natal the first week of the month was warm, but the remainder of the month cloudy and unsettled with frequent rain and some cold weather about the middle of the month, frost being experienced at Nottingham Road in the Weenen District on the 18th; some unpleasantly windy days were experienced. Ploughing operations had started in earnest in the Weenen, Ixopo, and other districts, but in the Port Shepstone District the rain had not soaked sufficiently into the ground. The veld was improving and grass growing well. Stock were looking well and regaining condition rapidly, while sheep were lambing satisfactorily. In parts of the country round Ladysmith, however, the rains had adversely affected stock. In the Cape Province good rains were experienced in the south and east coastal areas, and fairly satisfactory amounts in the greater part of the east and the eastern portions of the southern and central Karroos: some frosty mornings occurred about the middle and towards the end of the month, that at Andriesfontein (Division Hanover) on the 28th being severe. Generally speaking, although dry over a considerable area, the month was favourable to both agricultural and pastoral farmers. Crops were promising well at Queenstown, Venterstad, and Louisvale (Division Kenhardt), although at the latter place insects were damaging recently planted lucerne. In Riversdale the crops were expected to pull through, although certain parts were in need of a good soaking rain. Fruit promised to be abundant, although frost in the early part of the month had destroyed a number of trees, particularly almonds. Green fly was attacking peach trees at Andriesfontein (Division Hanover), and the maggot fly promised to become very troublesome this summer. In the south-west continuous south-east winds with dry and warm weather played havoc with fruit trees in blossom. The veld was generally in good condition, and on the south coast was looking delightfully green, as also at Queenstown, where, however, good rains were required to bring on the grass. Stock were mostly doing well, and, in fact, cattle were reported to be fat in some instances, while lambing was excellent in the Stutterheim, Barkly East, and Kenhardt Divisions. Sheep-shearing had started in the Riversdale District. As the result of a cold snap after the rain of the 14th in Bechuanaland, some slight loss in stock occurred, and stock were falling off in condition as a result of drought in Gordonia.

Water Supply.—The absence of any reports as to the state of the water supply seems to indicate that conditions in that respect were satisfactory all over. A severe hailstorm on the 11th at Selika, in the Bechuanaland Protectorate, was stated to be the worst the observer had seen in eighteen years; the stones were the size of hens' eggs, branches were broken from trees, and small game, e.g. duiker, steenbok, etc., were killed. During this storm 2·90 inches of rain were registered in twenty-five minutes, equivalent to the exceptionally high rate of 6·96 inches per hour. A heavy fall of *snow* on the Drakensberg was reported on the 18th. A strong wind on the 16th blew down buildings, unroofed a dwelling-house, and laid flat crops and fruit trees at Mount Stuart (Zoutpansberg Division): similar occurrences are stated to occur every year there.

OBSERVERS' NOTES, SEPTEMBER, 1925.

TRANSVAAL.

Rietvlei (*Ermelo*).—Very windy month and some exceedingly cold days and nights during September, but also beautiful welcome rains. Rainfall: 3·54 inches on eight days.—P. G. Steenkamp.

Lichtenburg.—District in good condition; fair amount of rain during the month. Rainfall: 1·07 inch on five days.—H. J. Swart.

Gemboksfontein (*Middelburg*).—Frosts were recorded on the 18th, 19th, and 20th, when the minimum thermometer dropped to 27·5 degrees, 29·9 degrees, and 29·4 degrees respectively. The welcome rains have helped to make the grass spring up. Rainfall: 2·69 inches on seven days.—L. C. Skead.

Transvaal University College Experimental Farm (*Pretoria*).—The early rains which fell during the month have supplied early green pasturage, enabled the preparation of lands to be started, and were of great value to the growing winter cereals. Rainfall: 3·12 inches on five days.—The Manager.

Myrthley (*Standerton*).—Early rains were the weather feature of the month. The fall of 1·02 inch on the 13th was accompanied by a severe hailstorm, which damaged fruit trees. Rainfall: 2·45 inches on ten days.—J. D. Ellis.

Mosdene (*Waterberg*).—The rainfall for September was extraordinary for these parts, and was all in the form of steady, soaking rains, which have done a great deal of good in enabling the lands to be ploughed and got ready for planting the summer crops, on which we depend. Fruit trees are all heavily laden and promise large crops. During the nine years records have been kept here the highest previous September rainfall was 0·79 inch in 1917. Rainfall: 3·03 inches on five days.—E. E. Galpin.

Amatava (*Waterberg*).—Hot generally with cool spells after very excellent rains which fell during the middle week of the month. All fruit trees and veld responded wonderfully. Ploughs can be used anywhere on the farm. Rainfall: 1·98 inch on six days.—A. R. Troye.

Nooitgedacht (*Waterberg*).—Excellent rains about the middle of the month; farming operations in full swing; in consequence cattle looking well. No locust hatchings reported in this neighbourhood. Rainfall: 3·52 inches on six days.—G. Gordon Brown.

Krugersdorp.—In most respects September has been a very fine month, and on the 13th and 14th the finest spring rains experienced for many years fell. Temperatures have been above normal, with no undue variations. The average rainfall for September is 0·96 inch over the past twenty-two years. Rainfall: 2·71 inches on five days.—H. Sharp.

Parktown North (*Witwatersrand*).—Wind, dust, cloudy, unsettled weather with cold snaps prevailed during September. A hailstorm occurred on the 13th lasting ten minutes, but did no damage. Rainfall: 2·11 inches on seven days.—G. S. Garvett.

Jackalsfontein (*Zoutpansberg*).—Moderate light rains fell during the middle of September helping the early grass considerably. Rainfall: 1·49 inch on eight days.—J. C. Palmer.

Idalia (*Piet Retief*).—The rains during September were ideal for agriculture. Stock is improving daily. Rainfall: 3·35 inches on eleven days.—B. Creydt.

Arcadia (*Pretoria*).—Mornings clear. Daytime fairly hot. Nights warmer. Heavy winds and large amount of rainfall during the month. Rainfall: 3·67 inches on seven days.—L. I. Goldblatt.

Berlin (*Barberton*).—The exceptionally good rains have improved the grazing and general outlook. Rainfall: 4·23 inches on eight days.—E. Edwards.

Bralbin (*Rustenburg*).—The rainfall during September was of very great assistance to the farmer. On some farms cotton has been planted, but on the majority the preparation of the soil for next rains continues. Rainfall: 2·73 inches on five days.—R. S. McPherson.

Wakkerstroom.—Although we have had good rains during the month, the grass is growing very slowly and cattle are weak. Rainfall: 2·79 inches on nine days.—J. C. Aspden.

Barberton.—Good rains have fallen during the month, and although some of the showers have been local, the valley on the whole has experienced good rains to some extent. Very little thunder and lightning has been noticed; a slight amount of hail fell with the first shower of rain, but no damage has been reported. There have been some very hot days, and the month has been a cloudy one. Rainfall: 4·23 inches on six days.—L. W. McClelland.

Potchefstroom (*School of Agriculture*).—A gradual increase in temperatures occurred during the first part of the month, which was followed by rain and a sharp fall in temperature. The latter part of the month was characterized by increasing temperatures and windy weather. Rainfall: 0·68 inch on five days.—D. Moses.

Middelburg (*Afrikaans School*).—September has surprised us with 2·91 inches of rain. The veld is green and live stock are in fairly good condition. The rains came in drizzles or showers mainly, the others fell with a few peals of thunder, but not the thunderstorms we usually experience at this time of the year; the usual duststorms also remained away. The maximum temperature for the month is below that for August, which can be accounted for by the few cold days we had, when the wind evidently blew from some hail which had fallen in some other part. About thirty miles to the north of our town (viz. Bothasberg) a funny sort of hail fell, like large lumps of ice or snow, and when they had reached the ground they were perfectly soft and looked like pieces of soft fat. Rainfall: 2·91 inches on ten days.—The Principal.

Magdalinaskuil (*Marico*).—13th: Terrific hailstones size of oranges, but fortunately only lasted from 3 p.m. till about 3.20 p.m. Rainfall: 1·01 inch on three days.—A. E. Rivett.

Syferfontein (*Marico*).—Hail from 4 to 4.15 p.m. from N.E., exceptionally big stones, some measuring 6½ inches in circumference. Rainfall: 0·89 inch on four days.—R. Donovan.

Crocodile Pools (*Marico*).—13th: Violent hailstorm at 5 p.m., stones measuring 8 inches. All trees laid bare of leaves. Rainfall: 2·90 inches on six days.—H. P. Duke.

Roos Senekal (*Middelburg*).—11th: Hail damage to fruit. Rainfall: 6·12 inches on six days.—J. N. van der Westhuizen.

Elandsfontein (Potchefstroom).—The crop is promising. Locusts have again done a little damage. Rainfall: 0·79 inch on four days.—P. J. Davidtz.

Weltevreden (Potchefstroom).—Mild spring weather promising a good season. Stock looking better than for past fourteen years. Rainfall: 1·82 inch on seven days.—D. Lane.

Mount Stuart (Zoutpansberg).—16th: Wind blew down buildings, the roof off my house, and crops and fruit trees blown flat. This happens every year. Rainfall: 2·55 inches on five days.—Clem. D. Clem-Webb.

Innerleithen (Zoutpansberg).—A glorious week of rain followed by warm weather; the pastures are coming on splendidly. Rainfall: 1·80 inch on eight days.—F. Halse.

Doornkloof (Zoutpansberg).—There have been high winds at night. Veld very good and stock in good condition. Hail on 23rd did little damage. Rainfall: 2·44 inches on seven days.—S. M. Ralston.

Brakpan (Wolmaransstad).—Veld and cattle are in good condition. The locusts are being kept down by spraying. On several nights very strong winds blew, stripping the leaves from trees and doing some damage to fruit. Rainfall: 1·20 inch on two days.—J. C. Lombard.

SWAZILAND.

Mbabane.—The rainfall for September was a record, the nearest being 4·63 inches in 1917. The country is looking its best, and all sheep farmers have left for the high veld. Farmers are now busy ploughing with a view to getting a record crop. A number of days have been exceptionally hot for September, the maximum temperature registered being 91 degrees on the 29th. Rainfall: 6·10 inches on fourteen days.—Swaziland Police.

Transvalia.—These rains have done a lot of good. Grass coming on for stock and ploughing commenced. Rainfall: 5·16 inches on seven days.—J. H. Coates.

ORANGE FREE STATE.

Wepener.—Precipitation for the month only 0·55 inch on five days, which was disappointing, as good rains are wanted by the farming community round about. Frosts have done a little damage to local fruit gardens.—W. D. Roche.

Riversdale (Kroonstad).—Heavy hail fell on the 11th for about a quarter of an hour without much damage. All stock doing well. The latter part of this month was cold for this time of the year. Rainfall: 1·75 inch on three days.—H. C. Kimmins.

Rafidin (Ladybrand).—Wheat crop very promising. Farmers are planting mealies on most farms now. Rainfall: 2·15 inches on eight days.—R. J. Louw.

Elandslaagte (Lindley).—Stock is healthy and in good condition. Mealies not finished reaping. Ploughing started again. Rainfall: 1·19 inch on five days.—C. J. S. Grove.

Elandskop (Senekal).—Beginning of month weather fine, grass grows, stock improve, and wheat comes along well. Changeable weather during month with frosts and showers mixed with hail. Towards end of month some trouble with sheep "geilziekte." Rainfall: 0·94 inch on five days.—A. J. Radley.

Prospect (Vrede).—The weather in early part of the month was distinctly colder than at end of August, but later was mild and pleasant. All fruit had an unusual amount of blossom. There were a few nights of frost, but fruit does not appear to have suffered. Grass is early and sheep have plenty to eat. Stock of all kinds look well for this time of the year. Rainfall : 1·42 inch on six days.—T. Pitcairn.

Unity (*Winburg*).—There were some sharp frosts, many blossoms being killed. On the 10th a very severe hailstorm passed here lasting about ten minutes. Hailstones about the size of pigeons' eggs fell and did a lot of damage to plants and orchards. The ears of wheat and oats are coming out ; they promise well but need rain. Rainfall : 0·74 inch on four days.—F. E. Parker.

Rietvlei (*Hoopstad*).—Hailstorm 10th. This was the severest hailstorm known for many years. The stones were about the size of fowls' eggs. In the neighbourhood twenty sheep were killed, and as far as Theunissen much damage was done. The same day the town of Hoopstad experienced very severe thunder and lightning, one native, eleven sheep, and three heads of cattle being struck. Rainfall : 1·26 inch on three days.—J. E. J. van Rensburg.

Natal.

Greytown.—Good rains have brought grass on well. The past winter has been a favourable one for stock. Sheep lambing well and cattle regaining condition rapidly. Rainfall : 3·24 inches on thirteen days.—J. M. Handley.

Verulam (*Inanda*).—Good rains and much dull weather. A good planting season seems assured. Grass has come on well. Rainfall : 5·03 inches on thirteen days.—The Gaoler.

Ismont (*Mid-Illovo*).—About an average rainfall, totalling 2·61 inches on fourteen days. Grazing improved and stock looking well. Hail on evening of 4th.—Lt.-Col. J. W. Montgomery, C.M.G., D.S.O.

Ladysmith.—The weather conditions have been very changeable, most unsettled, and very windy. Soaking rains fell on the 11th and 12th, followed by light showers on 15th, 22nd, and 24th, which badly affected the stock in some places. Rainfall : 1·38 inches on four days.—F. R. Hillebrand.

Emerald Dale (*Ixopo*).—First week of the month was very warm, the latter part being temperate. Nice rains fell from 21st to 24th, softening the ground well for ploughing operations. Rainfall : 2·99 inches on thirteen days.—Max. Anderson.

Paddock.—We have had unpleasantly high winds, springing up from midday. Nice rains in latter part of month, but have not soaked into the ground. New grass brought on for grazing. All stock in good condition. Rainfall : 2·73 inches on seven days.—G. V. Merriman.

Nottingham Road (*Weenen*).—No very hot days. Frost on 18th owing to heavy fall of snow on Drakensberg. Veld very good and all stock in good condition. Rainfall : 2·98 inches on fifteen days.—Miss E. Smythe.

Gluckstad (*Vryheid*).—The month started with really hot summer days, which were followed by rain and some cold weather on the 14th and 15th. The rainfall was fairly well distributed and the grass is growing well. Cattle are improving rapidly in condition. Most farmers have started to plough in earnest. Much virgin soil was broken up during March and April, and this is now being worked and pulverized. Rainfall : 2·95 inches on nine days.—F. W. J. Schumann.

Cape Province.

Vruchtbaar (*Paarl*).—Very dry and warm with a continuous south-easter wind which played havoc with some fruit trees in blossom. Rainfall : 1·30 inch on seven days.—P. J. Cillie (C.'s son).

Veiserton (Hay).—Veld in good condition. Frosts during early part of month destroyed young fruit trees, especially apricots. Heavy hatchings of locusts have occurred in Hay and Herbert. A few flying swarms have appeared in Hay. Rainfall: 0·49 inch on two days.—Capt. D. Addison.

Kei View (*Stutterheim*).—Stock in good condition and lambing excellent. Rainfall: 1·72 inch on five days.—M. Acton.

Belleville (*Barkly East*).—Small and large stock are in excellent condition and lambing in full swing. Rainfall: 1·25 inch on six days.—S. J. N. Vorster.

Andriesfontein (*Hanover*).—Weather very unsettled with severe frosts, especially on the 28th. Green fly attacking peach trees. Maggot fly promises to be very troublesome this summer. Rainfall: 0·60 inch on two days.—H. van der Merwe.

Nelspoort Sanatorium (*Beaufort West*).—Voetgangers have been hatching out during the last fortnight, and several swarms were sprayed. The hatching places appear to be on the higher koppies, and the swarms when hatched come down to the level ground. Veld in good condition. Rainfall: 1·48 inch on three days.—Dr. P. Allan.

Kraaipan (*Mafeking*).—The month started with a fairly high temperature, but after the rain on the 14th a cold snap set in lasting several days and causing slight losses in small stock. Prevailing winds N. and N.N.E. Rainfall: 0·81 inch on three days.—P. J. Hart.

Upington.—It is reported that several swarms of voetgangers have been destroyed in the district and Kalahari. Stock falling off in condition. Drought rather severe. Rainfall: 0·08 inch on one day.—H. J. Schmidt.

Riversdale.—There are certain parts of the district which require a good rain; generally speaking the crops will pull through. Sheep-shearing has started. The veld is in good condition. Rainfall: 2·54 inches on ten days.—Rev. Martin Johnson.

The Priory, Emerald Hill (*Port Elizabeth*).—The country is looking delightfully green after the welcome rains. Citrus and almond trees look very promising. Rainfall: 6·09 inches on nine days.—The Mother Superior.

Louisvale (*Kenhardt*).—A few cold nights and mornings, but a good month for local farmers, both stock and agricultural. Lambing most satisfactory and stock fat. Wheat and lucerne good, although complaints have come in of insects damaging latter where recently planted. Large swarm of flying locusts settled on Louisvale on the 23rd, but flew away again without doing much damage. Rainfall: Nil.—Stuart N. Smith.

Queenstown.—Stock and crops doing well. Fruit prospects good. Veld green, but good rains required to assist growth. Rainfall: 1·20 inch on six days.—H. Holley.

Graaff-Reinet (*Convent*).—The month was fine with fairly good rains. The frost on the 16th inst., however, caused considerable damage; winds variable. Rainfall: 1·02 inch on six days.—The Mother Superior.

Venterstad.—Veld and stock in good condition. Wheat crops are promising well. A few swarms of flying locusts appeared on some farms but are doing very little damage, if any. Rainfall: 0·29 inch on three days.—Rev. J. A. van Zijl Viljoen.

BECHUANALAND.

Selika.—A very severe hailstorm passed over Selika on the 11th inst., and 2·90 inches of rain were registered in twenty-five minutes; hailstones the size of inches' eggs; worst storm I have seen in South Africa during my stay of eighteen years; branches broken from trees and small game killed—duiker, steenbok, etc. Rainfall: 4.50 inches on six days.—H. Rayne.

NOVEMBER WEATHER CHARACTERISTICS.

With the exception of the western and south-western coastal districts, where the rainfall is decreasing, there is a general increase in the amount of precipitation throughout the Union.

The heaviest rainfall should now be experienced in the eastern Transvaal and Swaziland, with normals of 5·0 inches. In Zululand precipitation averages 4·5 inches; in Natal, 4·0 inches: in Kaffraria, 3·5 inches; in the south-east and Basutoland, 3·0 inches; in the western Transvaal and north-east of the Cape Province and along the south coast, 2·5 inches; in the Orange Free State, 2·0 inches; over the northern and east-central Karroo and the Cape Peninsula, 1·5 inch; and slightly more than an inch in the remainder of the Province, except the western and south-western coastal districts, where the normal is less than 1·0 inch. Severe thunder and hailstorms may occur, more especially inland; in fact, the number of hail days is now at its maximum over the Transvaal, whilst the curve is still rising elsewhere.

The highest mean daily temperature is now experienced over the northern borders of the Cape Province, where the normal is 72 degrees. In Natal and the eastern Transvaal a mean temperature of 71 degrees may be anticipated, and on the west-central Karroo, 69 degrees; on the southern Karroo, 68 degrees; on the east-central Karroo and in the Orange Free State, 67 degrees: in the Peninsula, 62 degrees; and over the remainder of the Union, 65 degrees should be reached. Frosts are unlikely.

Wind shows a decrease in the mean velocity compared with October, except over the south-west, where there is a slight increase in force. The prevalent directions are north-north-west over the Transvaal, south-south-west over the northern Border, north-east over the south-east of the Cape Province, and south over the Cape Peninsula. In comparison with the preceding month, there is a falling off at Kimberley of all winds from east round by south to south-west, but an increase in those from all other directions, especially north-north-east. At Johannesburg there is an increase in frequency of winds between west-north-west and north-north-west, but a decrease in all others, more particularly northerly and south-south-westerly. At East London there is a greater frequency of winds from those points between north-east and south, as well as from north-north-east, but a diminution of those from all other directions. At Capetown the main increase is in those from points between south-south-east and south-south-west and from north-west, but a decrease of those from west and west-north-west.

Of the total possible number of hours of bright sunshine, about 84 per cent. should be enjoyed over the northern Border, about 50 per cent. over the south-east of the Cape Province, about 68 per cent. over the Peninsula, and 67 per cent. over the Transvaal.

AIR TEMPERATURES (SELF-REGISTERING THERMOMETERS IN THERMOMETER-SCREENS), SEPTEMBER, 1925.

Station.	Observer.	Mean Maximum Temperature.	Mean Minimum Temperature.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
Transvaal—		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Barberton	L. W. McClelland	75·1	54·6	64·8	66·6	− 1·8	92·0	29th	46·0	18th.
Belfast	The Forester	66·8	37·0	51·9	55·2	− 3·3	81·0	30th	26·0	20th.
Bloemhof	S.A. Police	77·3	42·5	59·9	61·8	− 1·9	88·6	29th	33·0	12th and 14th.
Ermelo	J. Dean	67·6	43·7	55·6	58·6	− 3·0	79·0	29th	33·8	19th.
Johannesburg (Observatory)	The Staff	67·1	45·2	56·2	59·1	− 2·9	78·2	29th	33·2	17th.
Klerksdorp (Strathmore)	C. Scott	75·7	42·3	59·0	63·3	− 4·3	87·0	29th	34·0	9th and 18th.
Komatipoort	C. H. White	83·3	57·1	70·2	72·8	− 2·6	98·0	29th	50·0	1st, 17th, and 18th.
Louis Trichardt	C. L. Cope	73·9	50·9	62·4	66·0	− 3·6	92·0	30th	41·0	20th.
Middelburg (Afrikaans School)	The Principal	70·9	43·5	57·2	60·2	− 3·0	83·0	29th and 30th	35·0	18th.
Nylstroom	G. Bakker	76·0	47·5	61·8	64·5	− 2·7	91·0	30th	37·0	18th.
Pietersburg	W. J. Frankleyne	74·4	46·7	60·6	62·9	− 2·3	92·0	30th	38·0	19th.
Piet Retief	J. Werner	68·8	48·0	58·4	61·0	− 2·6	85·5	29th	39·5	17th and 18th.
Pigeonhole (New Agatha)	J. McCallum	68·8	51·7	60·2	—	—	83·0	28th, 29th and 30th	43·0	15th and 16th.
Pilgrims Rest	E. M. Skea	71·8	45·6	58·7	60·6	− 1·9	86·0	28th and 29th	38·0	20th.
Potchefstroom (Exp. Farm)	The Manager	74·3	43·5	58·9	61·1	− 2·2	86·8	29th	35·2	9th.
Pretoria (Meteorological Office)	The Staff	75·0	46·7	60·8	63·4	− 2·6	86·9	29th	39·9	18th and 19th.
Rustenburg	A. Streatfield	76·7	45·7	61·2	65·0	− 3·8	88·0	29th	39·0	19th.
Standerton	The Magistrate	70·9	41·1	56·0	56·6	− 0·6	82·0	1st and 29th	27·0	20th.
Zeerust	H. Dietrich	75·4	43·6	59·5	63·4	− 3·9	89·6	29th	36·8	19th.
Swaziland—										
Mbabane	Swaziland Police	70·4	47·7	59·1	61·2	− 2·1	91·0	29th	39·0	20th.
Orange Free State—										
Bethulie	J. J. Wardhaugh	71·1	39·4	55·3	58·2	− 2·9	80·6	1st	29·0	14th.
Bloemfontein	G. A. Schepers	71·8	41·9	56·8	59·1	− 2·3	81·8	3rd	30·4	12th.
Harrismith	The Forester	62·9	40·6	51·8	54·6	− 2·8	78·0	29th	32·0	18th.
Kroonstad	A. C. Mason	73·4	42·5	58·0	60·6	− 2·6	85·4	29th	33·4	9th.
Ladybrand	The Forester	66·4	42·6	54·5	55·2	− 0·7	76·0	1st	35·0	12th.
Lindley	J. Murphy	70·5	41·2	55·8	59·0	− 3·2	83·0	29th	34·0	13th.
Natal.										
Dundee	W. Thorrold	73·2	44·9	59·1	63·0	− 3·9	87·0	29th	34·0	17th.
Durban (Point)	The Port Captain	72·8	60·8	66·8	67·6	− 0·8	79·2	29th	55·2	17th.
Empangeni	The Forester	75·8	57·8	66·8	68·3	− 1·5	92·0	27th	48·0	18th.
Estcourt	The Town Clerk	72·3	46·3	59·3	62·4	− 3·1	88·0	30th	35·0	18th.
Hlabisa	E. E. Redgrove	72·9	54·8	63·8	66·7	− 2·9	89·0	27th	47·0	17th.
Ladysmith	F. R. Hillebrand	75·0	48·7	61·8	65·0	− 3·2	92·0	29th	34·0	18th.
Maritzburg (Mental Hospital)	The Staff	72·9	52·0	62·4	65·2	− 2·8	92·0	29th	41·8	18th.
Stanger	C. C. Foss	75·9	58·0	67·0	66·6	+ 0·4	89·0	7th	49·0	12th.
Weenen	The Gaoler	76·4	47·9	62·2	64·6	− 2·4	91·0	30th	39·0	18th.

AIR TEMPERATURES, SEPTEMBER, 1925—(*continued*).

Station.	Observer.	Mean Maximum Temperature.	Mean Minimum Temperature.	Mean Monthly Temperature.	Normal Monthly Temperature.	Difference from Normal.	Extremes.			
							Highest.	Date.	Lowest.	Date.
Cape Province—		° F.	° F.	° F.	° F.	° F.	° F.		° F.	
Aliwal North	A, Alcock	72·2	40·1	56·2	56·7	— 0·5	82·0	26th	29·5	12th.
Bedford	—	—	—	—	58·6		—	—	—	—
Capetown (Royal Observatory)	The Staff	68·0	52·6	60·3	57·0	+ 3·3	92·3	18th	44·2	8th.
Carnarvon	A. P. Malherbe	71·3	40·2	55·8	54·2	+ 1·6	81·0	1st and 26th	30·0	9th and 12th.
Clanwilliam	C. B. van Zijl	77·0	47·0	62·0	59·6	+ 2·4	93·0	17th	39·4	13th.
East London	The Port Captain	71·2	55·4	63·3	61·8	+ 1·5	99·0	2nd	45·2	12th.
Graaff-Reinet (Convent)	The Mother Superior	73·9	49·1	61·5	60·2	+ 1·3	90·6	2nd	33·8	16th.
Grahamstown	The Vet. Res. Officer	66·8	44·8	55·8	58·2	— 2·4	84·6	19th	32·0	9th and 12th.
Groot Drakenstein	A. L. Franceys	70·0	49·5	59·8	58·3	+ 1·5	91·0	18th	39·0	10th.
Kenhardt	R. Seydell	78·3	47·0	62·6	61·5	+ 1·1	90·0	1st	35·0	12th.
Kimberley	C. H. Dowler	76·1	46·0	61·0	62·4	— 1·4	87·0	1st, 2nd, and 28th	36·0	14th.
Kingwilliamstown	W. A. Kindness	72·8	50·6	61·7	61·8	— 0·1	94·5	2nd	41·0	12th.
Kokstad	H. D. Coyte	68·6	41·9	55·2	56·8	— 1·6	86·0	27th	31·0	12th.
Mafeking (Convent)	The Mother Superior	75·1	45·3	60·2	62·7	— 2·5	88·9	29th	36·8	22nd.
Mossel Bay (Cape St. Blaize)	The Lightkeeper	66·0	55·1	60·6	58·4	+ 2·2	89·0	19th	48·5	8th.
O'okiep	H. T. Wyles	69·9	48·8	59·4	58·8	+ 0·6	85·0	25th	39·6	10th and 13th.
Port Elizabeth	The Lightkeeper	66·9	54·0	60·4	59·7	+ 0·7	87·0	19th	47·0	9th.
Port Nolloth	The Lightkeeper	66·0	47·8	56·9	54·7	+ 2·2	97·5	18th	39·0	9th.
Port St. Johns	The Lightkeeper	71·0	59·2	65·1	64·0	+ 1·1	80·0	26th	52·0	12th.
Queenstown	H. Holley	71·1	44·7	57·9	58·2	— 0·3	84·0	1st, 2nd, and 26th	31·0	16th.
Somerset East	C. Harris	68·4	47·5	58·0	58·7	— 0·7	89·8	2nd	37·0	17th.
Stutterheim	F. C. Bousfield	70·6	49·2	59·9	57·8	+ 2·1	88·6	2nd	36·7	16th.
Sydney's Hope	Rev. S. Rippon	66·3	49·3	57·8	59·0	— 1·2	85·0	2nd	40·5	13th.
Uitenhage	H. Inggs	71·8	50·2	61·0	61·2	— 0·2	92·7	19th	37·0	17th.
Umtata	B. J. Hackitt	73·4	48·1	60·8	60·4	+ 0·4	90·2	2nd	37·5	12th.
Vryburg	Sergt. H. White	75·3	42·7	59·0	62·6	— 3·6	89·0	28th	30·0	12th.
Wynberg (Convent)	The Mother Superior	69·8	52·3	61·0	58·2	+ 2·8	92·0	18th	44·5	11th.
Basutoland—										
Mafeteng	F. Hodgson	66·2	41·2	53·7	55·8	— 2·1	74·0	1st, 3rd, and 27th	33·0	12th.

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Station.	Observer.	September, 1925.	Normal.	Difference from Normal.	From 1st January, 1925.	Normal.	Difference from Normal.	From 1st July, 1925.	Normal.	Difference from Normal.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Transvaal—										
Barberton	L. W. McClelland	4·23	1·02	+ 3·21	28·65	19·67	+ 8·98	4·23	1·90	+ 2·33
Belfast	The Forester	3·45	0·78	+ 2·67	26·65	18·11	+ 8·54	3·95	1·59	+ 2·36
Bethal	H. F. Joubert	4·30	0·72	+ 3·58	19·99	15·51	+ 4·48	4·51	1·51	+ 3·00
Bloemhof	S.A. Police	1–20	0·76	+ 0·44	—	—	—	1·28	1·40	— 0·12
Claremont	S.A. Police	2·78	0·13	+ 2·65	76·25	11·32	+ 4·93	2·78	0·57	+ 2·21
Ermelo	The Forester	2·77	1·00	+ 1·77	17·92	16·59	+ 1·33	2·88	2·04	+ 0·84
Haenertsburg	S.A. Police	1·80	0·71	+ 1·09	44·58	25·96	+18·62	1·86	1·58	+ 0·22
Heidelberg	W. ter Horst	1·25	0·83	+ 0·42	—	—	—	1·32	1·67	— 0·35
Johannesburg (Observatory)	The Staff	2·11	0·86	+ 1·25	23·78	18·12	+ 5·66	2·35	1·77	+ 0·58
Joubert Park	The Supt. of Parks	2·32	0·94	+ 1·38	27·59	20·27	+ 7·32	2·67	1·79	+ 0·88
Klerksdorp (Strathmore)	C. Scott	0·64	0·66	— 0·02	19–18	14·87	+ 4·31	0·74	1·39	— 0·65
Komatipoort	C. H. White	1·27	0·52	+ 0·75	31·20	19·07	+12·13	1·42	1·33	+ 0·09
Louis Trichardt	C. L. Cope	2·61	0·44	+ 2·17	42·21	19·37	+22·84	3·85	1·18	+ 2·67
Middelburg	The Prnicipal	2·91	0·49	+ 2·42	—	15·92	—	2·91	1·06	+ 1·85
Nylstroom	G. Bakker	2·64	0·47	+ 2·17	24·73	15·26	+ 9·47	2·64	1·15	+ 1·49
Pietersburg	W. J. Frankleyne	3·19	0·26	+ 2·93	18·35	12·11	+ 6·24	3·37	0·73	+ 2·64
Piet Retief	J. Werner	6·29	1·18	+ 5·11	32·07	20·55	+11·52	6·86	2·30	+ 4·56
Pigeonhole (New Agatha)	J. McCallum	3·67	0·72	+ 2·95	61·78	30·95	+30·83	4·85	2·10	+ 2·75
Pilgrims Rest	E. M. Skea	2·91	0·93	+ 1·98	47·69	27·63	+20·06	3·04	1·88	+ 1·16
Potchefstroom	The Manager	0·68	0·67	+ 0·01	21·64	14·11	+ 7·53	0·91	1·45	— 0·54
Pretoria (Meteorological Office)	The Staff	3·55	0·41	+ 3·14	27·92	17·11	+10·81	3·90	1·19	+ 2·71
Rooiberg	N. H. Munro	2·56	0·33	+ 2·33	19–67	15·44	+ 4–23	2·56	1·27	+ 1·29
Rustenburg	A. Streatfield	2·31	0·59	+ 1·72	24·9	16·04	+ 8·94	2·45	1·55	+ 0·90
Standerton	The Magistrate	2·43	0·91	+ 1·52	—	16·83	—	2·51	1·95	+ 0–56
Wakkerstroom	J. C. Aspden	2·79	0·99	+ 1·80	24·78	19·05	+ 5·73	3·04	2·23	+ 0·81
Woodbush 1	The Forester	4·65	1·64	+ 3·01	77·36	48·83	+28·53	6·53	3·61	+ 2·93
Zeerust	H. Dietrich	1·07	0·52	+ 0·55	24·11	15·15	+ 8·96	1·12	0·98	+ 0·14
Swaziland—										
Mbabane	Swaziland Police	6·10	1·86	+ 4·24	67·39	33·24	+34·15	6·52	3·71	+ 2·81
Orange Free State—										
Bethulie	J. J. Wardhaugh	0·00	0·71	— 0·71	22·32	12·95	+ 9·37	0·46	1·54	1·08
Bloemfontein	G. A. Schepers	1·97	0·86	+ 1·11	18·45	15·63	+ 2·82	2·24	1·74	+ 0–50
Boshof	E. W. Milton	0·40	1·06	— 0·66	15·27	14·12	+ 1·15	0·40	2·03	— 1·63
Harrismith	The Forester	2–89	1·07	+ 1·82	26·67	17·75	+ 8·92	3·35	2·23	+ 1·12
Kroonstad	A. C. Mason	1·46	0·89	+ 0·57	17·84	16·00	+ 1·84	1·48	1·69	— 0·21
Ladybrand	The Forester	2·11	1·64	+ 0·47	26·74	18·18	+ 8·56	2·36	2·90	— 0·54
Lindley	The Gaoler	1·42	1·00	+ 0·42	22·50	15·31	+ 7·19	1·49	1·77	— 0·28

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Natal—		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Dundee	W. Thorrold	2·43	1·24	+ 1·19	28·69	19·99	+ 8·70	2·78	2·33	+ 0–45
Durban (Point)	The Port Captain	4·45	3·12	+ 1·33	41·57	26·71	+14·86	7·58	5·92	+ 1·66
Empangeni	The Forester	4·47	2·77	+ 1·70	66·80	30·73	+36·07	8·73	6·56	+ 2·17
Estcourt	The Town Clerk	2·91	0·98	+ 1·93	34·96	18·51	+16·45	3·61	1·94	+ 1·67
Hlabisa	E. E. Redgrove	3·55	2·28	+ 1·27	75·86	27·21	+48·65	7·34	4·39	+ 2·95
Howick	The Gaoler	3·78	1·68	+ 2·10	35·99	21·23	+14·76	4·53	2·92	+ 1·61
Ladysmith	F. R. Hillebrand	1·38	0·95	+ 0·43	35·73	18·29	+17·44	1·83	2·07	− 0·24
Pietermaritzb'g (Mental Hospital)	The Staff	3·27	2·32	+ 0·95	37·86	23·67	+14·19	4·35	3·66	+ 0·69
Stanger	C. C. Foss	8·56	3·21	+ 5·35	—	25·76	—	—	5·60	—
Vryheid	The Gaoler	3·26	1·47	+ 1·79	33·90	20·83	+13·07	6·21	2·59	+ 3·62
Weenen	The Gaoler	2·37	1·06	+ 1·31	22·06	17·30	+ 4·76	2·64	2·06	+ 0·58
Cape Province—										
Aliwal North	A. Alcock	0·31	0·88	+ 0·57	27·46	14·62	+12·84	1·22	2·02	− 0·80
Beaufort West	The Gaoler	2·32	0·66	+ 1·66	9·02	7·32	+ 1·70	2·99	1·24	+ 1·75
Britstown	S.A. Police	0·05	0·58	− 0·53	16·94	9·24	+ 7·70	0·96	1·03	− 0·07
Calvinia	The Gaoler	0·33	0·61	− 0·28	13·18	7·13	+ 6·05	3·50	2·39	+ 1·11
Capetown (Royal Observatory)	The Staff	1·37	2·29	− 0·92	19·02	21·83	− 2·81	6·93	9·35	− 2·42
Ceres	The Gaoler	0·63	4·21	− 3·58	34·72	34·80	− 0·08	8·92	16·12	− 7·20
Carnarvon	A. P. Malherbe	0·08	0·29	− 0·21	13.28	6·46	+ 6·82	1·14	0·81	+ 0·33
Clanwilliam	The Gaoler	0·11	0·79	− 0·68	12·20	7·62	+ 4·58	3·51	3·29	+ 0·22
Concordia	F. Carstens	0·07	0·51	− 0·44	13·53	5·61	+ 7·92	4·72	1·91	+ 2·81
Driefontein (French Hoek)	The Forester	2·94	6·65	− 3·71	57·73	66·28	− 8·55	20·44	27·48	− 7·04
East London	A. Downie	2·42	3·06	− 0·64	25·94	22·76	+ 3·18	3·49	6·27	− 2·78
Fraserburg	The Gaoler	0·00	0·29	− 0·29	8·45	5·61	+ 2·84	1·77	0·90	+ 0·87
Grahamstown	The Vet. Res. Officer	2·12	2·43	− 0·31	15·94	19·36	− 3·42	3·10	5·13	− 2·03
Garies	The Gaoler	0·00	0·43	− 0·43	—	4·36	—	—	1·89	—
Graaff-Reinet (Convent)	The Mother Superior	1·02	1·04	− 0·02	11·19	10·17	+ 1·02	2·24	1·99	+ 0·25
Groot Drakenstein	A. L. Franceys	1·29	3·39	− 2·10	30·39	30·38	+ 0·01	12·45	13·37	− 0·92
Griquatown	The Gaoler	0·00	0·37	− 0·37	—	10·04	—	—	0·83	—
George (Rectory)	Rev. Canon B. Price	12·07	3·22	+ 8·85	31·40	24·91	+ 6·49	15·75	7·25	+ 8–50
Hanover	The Gaoler	0·20	0·67	− 0·47	14·15	10·50	+ 3·65	1·22	1·37	− 0·15
Hopetown	The Gaoler	—	0·43	—	—	9·74	—	—	0·94	—
Kenhardt	R. Seydell	0·00	0·18	− 0·18	5·98	4·77	+ 1·21	0·59	0·54	+ 0·05
Kimberley	H. C. Dowler	0·40	0·58	− 0·18	16·78	11·48	+ 5·30	0·57	1·16	− 0·59
Knysna	The Gaoler	8·08	2·86	+ 5·22	22·02	21·16	+ 0·86	10·51	7·50	+ 3·01
Kokstad	H. D. Coyte	1·15	1·33	− 0·18	22·62	17·59	+ 5·03	1·23	2·20	− 0·97
Kingwilliamstown	W. Kindness	2·72	1·81	+ 0·91	21·14	17·33	+ 3·81	3·35	3·90	− 0·55
Kuruman	Resident Magistrate	1·19	0·41	+ 0·78	22·07	12·78	+ 9·29	1·38	0·84	+ 0–54
Mafeking (Convent)	The Mother Superior	1·23	0·62	+ 0·61	20·56	14·78	+ 5·77	1·23	1·45	− 0·22
Mossel Bay (Cape St. Blaize)	The Lightkeeper	3·48	1·72	+ 1–76	14·05	13·09	+ 0·96	5·90	4·38	+ 1·52

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